

Distributed by:



**[www.Jameco.com](http://www.Jameco.com) ♦ 1-800-831-4242**

The content and copyrights of the attached  
material are the property of its owner.

Jameco Part Number 148690



## **Declaration of RoHS Conformity**

To minimize the environmental impact and take more responsibility to the earth we live, MEAN WELL hereby confirms that the following product series comply with Directive 2002/95/EC of the European Parliament - RoHS (Restriction of Hazardous Substances).

### **Content of Compliance**

|                                       |                             |
|---------------------------------------|-----------------------------|
| Lead                                  | <0.1 % by weight (1000 ppm) |
| Mercury                               | <0.1 % by weight (1000 ppm) |
| Cadmium                               | <0.01 % by weight (100 ppm) |
| Hexavalent Chrome (Cr <sup>+6</sup> ) | <0.1 % by weight (1000 ppm) |
| PBBs                                  | <0.1 % by weight (1000 ppm) |
| PBDEs                                 | <0.1 % by weight (1000 ppm) |

### **Product Series**

Please refer to the attached list for details.

### **Delivery**

**The actual delivery date for RoHS compliance products will depend on our inventory status.**

Please contact our sales representatives for details.

### **How to Recognize**

The serial number on each PSU originally was Cxxxxxxxx and right now will be changed to Rxxxxxxxx or Exxxxxxxx (or add "R" for serial number that only specify the production weeks) for RoHS compliance products for the ease of identification.

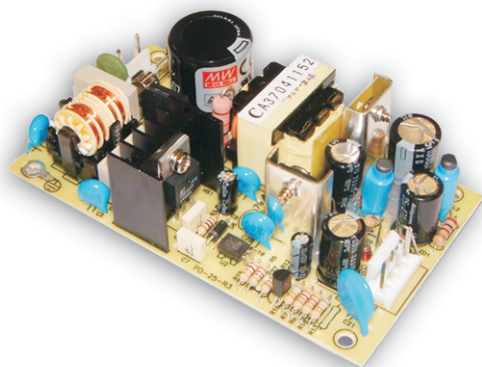
Jerry Lin / President  
MEAN WELL Enterprises Co., Ltd.

| Product Family         | Series                                                                                                                                                                                                                                                                                                |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>G3</b>              | RS-25/35/50/75/100/150, RD-35/50/65/85/125, RID-50/65/85/125, RT-50/65/85/125, RQ-50/65/85/125                                                                                                                                                                                                        |
| <b>G2</b>              | S-25/40/60/100F/150/240, T-40, D/ID/T/IT/Q/IQ-60, D/T/Q-120, SC-150                                                                                                                                                                                                                                   |
| <b>PFC</b>             | SP-75/100/150/200/320/480/500/750, USP-225/350, TP-75/100/150, QP-100/150/200/320/375                                                                                                                                                                                                                 |
| <b>AD</b>              | ADS-55/155, AD-55/155, ADD-55/155                                                                                                                                                                                                                                                                     |
| <b>CL/PL</b>           | CLG-60/100, PLN-30/60/100                                                                                                                                                                                                                                                                             |
| <b>DIN</b>             | MDR-20/40/60, DR-30/45/60/75/100/120, DRH-120, DRP-240/480/480S, DRT-240/480/960, DR-RDN20, DR-UPS40                                                                                                                                                                                                  |
| <b>Modular</b>         | MP-450/650/1K0, MS-75/150/300, MD-100                                                                                                                                                                                                                                                                 |
| <b>Parallel</b>        | PSP-500/600/1000/1500, RSP-1000/1500, RCP-1000, RCP-1U                                                                                                                                                                                                                                                |
| <b>Open Frame</b>      | NFM-05/10/15/20, PM-05/10/15/20, PS/PD-25, PS-35, PS/PD/PT-45, PS/PD/PT-65, RPD/RPT-65, PD-110, PQ-100, PPQ-100, PPS/PPT-125, LPS-50/75/100, LPP-100/150, ASP-150, PPS-200, PID-250, MPS-30, MPS/MPD/MPT-45, RPS/RPD/RPT-60, MPS/MPD/MPT-65, RPS/RPD/RPT-75, MPS/MPD/MPT/MPQ-120, MPS/MPD/MPT/MPQ-200 |
| <b>Charger</b>         | GC-30, PA/PB/PS-120, ESC/ESP-120, ESC/ESP-240, PB-300/360                                                                                                                                                                                                                                             |
| <b>Adaptor</b>         | GS-06/15/18/25, ES-18/25, P25, P30, P40, P50, P66, U65S, MES-30/50, ATX-100, AS-120P                                                                                                                                                                                                                  |
| <b>PC/IPC Power</b>    | YP-350J, IPC-200/250/300                                                                                                                                                                                                                                                                              |
| <b>DC/DC Converter</b> | SD-25/50/100/150/200/350, SDM30, ASD10H/15H, NSD10/15, SBT, SFT, DET, SRS, SUS, SPR, SPU, SCW, SLW, SKE SKA, DCW, DLW, DKE, DKA, TKA                                                                                                                                                                  |
| <b>Inverter</b>        | TN/TS-1500, A301/A302                                                                                                                                                                                                                                                                                 |
| <b>Power Cord</b>      | YP** + YC**                                                                                                                                                                                                                                                                                           |

**\*\* For other products not listed above, please contact our sales representatives for availability**

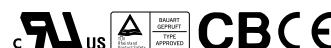
2007.04 update

ISO-9001 CERTIFIED  
Your Reliable Power Partner



#### ■ Features :

- Universal AC input / Full range
- Low leakage current<0.5mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 100KHz
- Low cost
- High reliability
- 2 years warranty

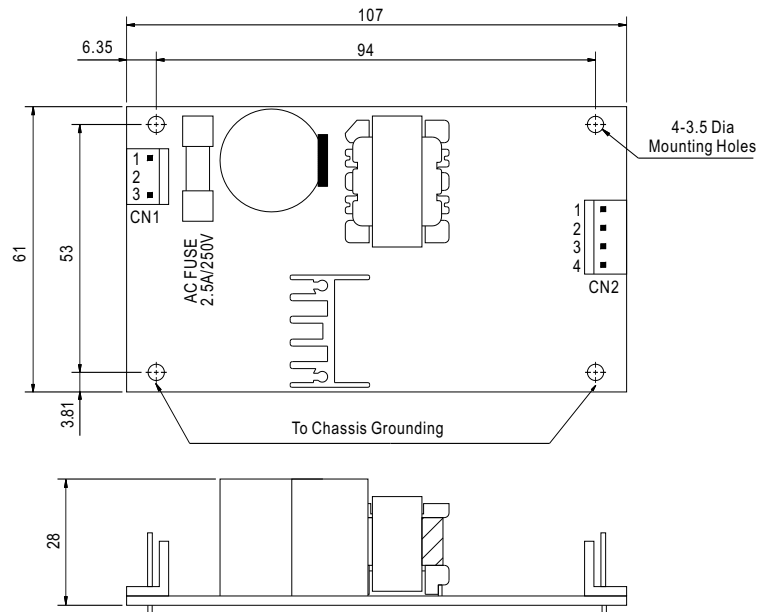


#### SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PD-25A                                                                                                                                          |                          | PD-25B                          |          | PD-2505                     |            | PD-2512                     |            | PD-2515                     |          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------|----------|-----------------------------|------------|-----------------------------|------------|-----------------------------|----------|
| OUTPUT                   | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CH1                                                                                                                                             | CH2                      | CH1                             | CH2      | CH1                         | CH2        | CH1                         | CH2        | CH1                         | CH2      |
|                          | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5V                                                                                                                                              | 12V                      | 5V                              | 24V      | 5V                          | -5V        | 12V                         | -12V       | 15V                         | -15V     |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.1A                                                                                                                                            | 1.2A                     | 1.2A                            | 0.8A     | 2.5A                        | 2.5A       | 1A                          | 1A         | 0.8A                        | 0.8A     |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.2 ~ 2.5A                                                                                                                                      | 0.1 ~ 1.5A               | 0.2 ~ 2A                        | 0.1 ~ 1A | 0.1 ~ 3A                    | 0.1 ~ 2.5A | 0.1 ~ 1.2A                  | 0.1 ~ 1.2A | 0.1 ~ 1A                    | 0.1 ~ 1A |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25W                                                                                                                                             |                          | 25.2W                           |          | 25W                         |            | 24W                         |            | 24W                         |          |
|                          | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 50mVp-p                                                                                                                                         | 150mVp-p                 | 50mVp-p                         | 200mVp-p | 50mVp-p                     | 50mVp-p    | 50mVp-p                     | 50mVp-p    | 50mVp-p                     | 50mVp-p  |
|                          | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±2.0%                                                                                                                                           | ±6.0%                    | ±2.0%                           | ±6.0%    | ±6.0%                       | ±6.0%      | ±4.0%                       | ±4.0%      | ±4.0%                       | ±4.0%    |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±0.5%                                                                                                                                           | ±2.0%                    | ±0.5%                           | ±2.0%    | ±1.0%                       | ±1.0%      | ±0.5%                       | ±0.5%      | ±0.5%                       | ±0.5%    |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±1.0%                                                                                                                                           | ±4.0%                    | ±1.0%                           | ±4.0%    | ±4.0%                       | ±4.0%      | ±3.0%                       | ±3.0%      | ±3.0%                       | ±3.0%    |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 250ms, 50ms/230VAC                                                                                                                              |                          | 250ms, 30ms/115VAC at full load |          |                             |            |                             |            |                             |          |
| HOLD UP TIME (Typ.)      | 100ms/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 | 16ms/115VAC at full load |                                 |          |                             |            |                             |            |                             |          |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 85 ~ 264VAC                                                                                                                                     |                          | 120 ~ 370VDC                    |          |                             |            |                             |            |                             |          |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 47 ~ 63Hz                                                                                                                                       |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 71%                                                                                                                                             |                          | 77%                             |          | 73%                         |            | 74%                         |            | 75%                         |          |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.65A/115VAC                                                                                                                                    |                          | 0.4A/230VAC                     |          |                             |            |                             |            |                             |          |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | COLD START 32A                                                                                                                                  |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.5mA / 240VAC                                                                                                                                 |                          |                                 |          |                             |            |                             |            |                             |          |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Above 105% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                         |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5.75 ~ 6.75V 13.8 ~ 16.2V                                                                                                                       |                          | 5.75 ~ 6.75V 27.6 ~ 32.4V       |          | 5.75 ~ 6.75V -5.75 ~ -6.75V |            | 13.8 ~ 16.2V -13.8 ~ -16.2V |            | 17.3 ~ 20.3V -17.3 ~ -20.3V |          |
|                          | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Protection type : Shut off o/p voltage, clamping by zener diode                                                                                 |                          |                                 |          |                             |            |                             |            |                             |          |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Tj 135℃ typically (U1) detect on main control IC<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down |                          |                                 |          |                             |            |                             |            |                             |          |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -10 ~ +60℃ (Refer to output load derating curve)                                                                                                |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 ~ 90% RH non-condensing                                                                                                                      |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -20 ~ +85℃, 10 ~ 95% RH                                                                                                                         |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±0.03%/℃ (0 ~ 50℃) ON CH1 output                                                                                                                |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min.each along X, Y, Z axes                                                                          |                          |                                 |          |                             |            |                             |            |                             |          |
| SAFETY & EMC<br>(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, light industry level, criteria A                                                                               |                          |                                 |          |                             |            |                             |            |                             |          |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 507.9Khrs min. MIL-HDBK-217F (25℃)                                                                                                              |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 107*61*28mm (L*W*H)                                                                                                                             |                          |                                 |          |                             |            |                             |            |                             |          |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.15Kg; 96pcs/15.9Kg/1.3CUFT                                                                                                                    |                          |                                 |          |                             |            |                             |            |                             |          |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |                                                                                                                                                 |                          |                                 |          |                             |            |                             |            |                             |          |

## Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 41791-03 or equivalent

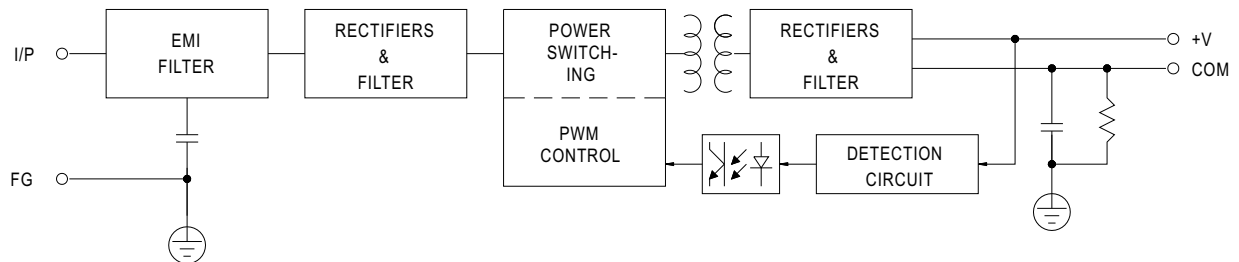
| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | AC/L       | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 2       | No Pin     |                          |                          |
| 3       | AC/N       |                          |                          |

DC Output Connector (CN2) : Molex 41791-04 or equivalent

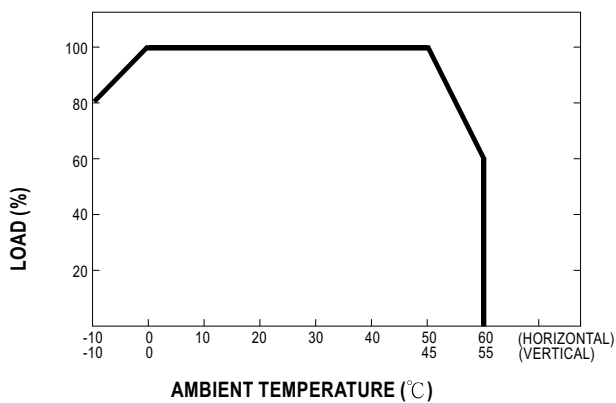
| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | V1         | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 2,3     | COM        |                          |                          |
| 4       | V2         |                          |                          |

## Block Diagram

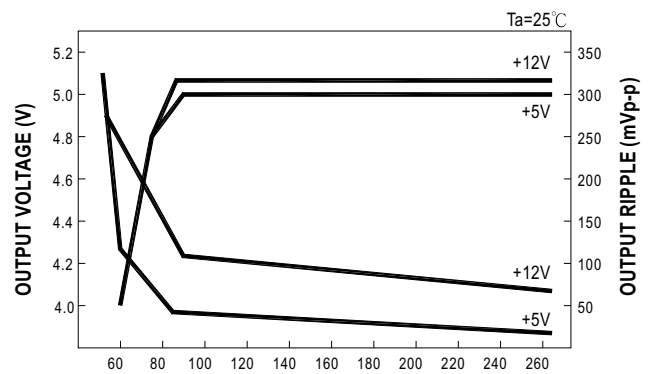
fosc : 100KHz



## Derating Curve



## Static Characteristics (A)



# Quality Engineering Test Report

SERIES:PD25      25W AC-DC DUAL OUTPUT OPEN FRAME SWITCHING POWER SUPPLY  
SAMPLE: A.PD-25AV1:+5V /2.1A      C.PD-2505 V1:+5V / 2.5A      E.PD-2515 V1:+15V / 0.8A  
V2:+12V / 1.2A      V2:-5V / 2.5A      V2:-15V / 0.8A  
B.PD-25BV1:+5V /1.2A      D.PD-2512 V1:+12V / 1A      F.PD-2503 V1:+5V / 3A  
V2:+24V /0.8A      V2:-12V /1A      V2:+3.3 / 3A

| NO | TEST ITEM                | TEST CONDITION / SPECIFICATION                                                                                                                                                                                        | RESULT                                                                                                                                                                                                                                                              | VERDICT |
|----|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1  | AC INPUT VOLTAGE RANGE   | I/P:TESTING SPEC:85~264VAC<br>O/P:FULL LOAD                                                                                                                                                                           | F:59.1VAC~264VAC                                                                                                                                                                                                                                                    | P       |
| 2  | LINE REGULATION          | I/P:85~264VAC SPEC:<br>O/P:FULL LOAD<br>A :V1 :±0.5%<br>V2 :±2%<br>B :V1 :±0.5%<br>V2 :±2%<br>C :V1 :±1%<br>V2 :±1%<br>D :V1 :±0.5%<br>V2 :±0.5%<br>E :V1 :±0.5%<br>V2 :±0.5%<br>F :V1 :±2%<br>V2 :±1%                | A: V1: -0.1%~+0%<br>V2: -0.05%~+1.1%<br>B: V1: -0%~+0%<br>V2: -0.02%~+0.94%<br>C: V1: -0.24%~+0%<br>V2: -0%~+0%<br>D: V1: -0%~+0.1%<br>V2: -0.1%~+0%<br>E: V1: -0.04%~+0%<br>V2: -0%~+0%<br>F: V1: -0.51%~+0%<br>V2: -0%~+0%                                        | P       |
| 3  | LOAD REGULATION          | I/P:230VAC SPEC:<br>O/P:MIN. TO FULL LOAD<br>A : V1 : ±1%<br>V2 : ±4%<br>B : V1 : ±1%<br>V2 : ±4%<br>C : V1 : ±4%<br>V2 : ±4%<br>D : V1 : ±3%<br>V2 : ±3%<br>E : V1 : ±3%<br>V2 : ±3%<br>F : V1 : ±4%<br>V2 : ±1%     | A: V1: -0.1%~+0.1%<br>V2: -0%~+0.2%<br>B: V1: -0.12%~+0%<br>V2: -0%~+0.23%<br>C: V1: -0.62%~+0%<br>V2: -0.12%~+0.62%<br>D: V1: -0.1%~+0%<br>V2: -0.1%~+0.2%<br>E: V1: -0.1%~+0.05%<br>V2: -0.1%~+0.12%<br>F: V1: -0.24%~+0.51%<br>V2: -0.36%~+0.36%                 | P       |
| 4  | OUTPUT VOLTAGE TOLERANCE | I/P:230VAC SPEC:<br>O/P:MIN. TO FULL LOAD<br>A : V1 : ±2%<br>V2 : ±6%<br>B : V1 : ±2%<br>V2 : ±6%<br>C : V1 : ±6%<br>V2 : ±6%<br>D : V1 : ±4%<br>V2 : ±4%<br>E : V1 : ±4%<br>V2 : ±4%<br>F : V1 : -8%~+5%<br>V2 : ±2% | A: V1: -0%~+0.24%<br>V2: -4.79%~+5.67%<br>B: V1: -0.12%~+0.12%<br>V2: -2.43%~+4.0%<br>C: V1: -4.66%~+4.3%<br>V2: -4.39%~+4.8%<br>D: V1: -2.29%~+2.08%<br>V2: -2.19%~+2.23%<br>E: V1: -2.83%~+0.08%<br>V2: -2.6%~+0.37%<br>F: V1: -6.38%~+1.86%<br>V2: +1.69%~+2.45% | P       |
| 5  | RIPPLE&NOISE             | I/P:230VAC SPEC:<br>O/P:FULL LOAD<br>A :V1 :50mV<br>V2 :150mV<br>B :V1 :50mV<br>V2 :200mV<br>C :V1 :50mV<br>V2 :50mV<br>D :V1 :50mV<br>V2 :50mV<br>E :V1 :50mV<br>V2 :50mV<br>F :V1 :50mV<br>V2 :50mV                 | A: V1: 16mV<br>V2: 25mV<br>B: V1: 7mV<br>V2: 20mV<br>C: V1: 7mV<br>V2: 5mV<br>D: V1: 6mV<br>V2: 6mV<br>E: V1: 6mV<br>V2: 5mV<br>F: V1: 6mV<br>V2: 23mV                                                                                                              | P       |

| NO | TEST ITEM                                     | TEST CONDITION / SPECIFICATION                                                                                                              |                                                          | RESULT                                                                                                                                                                     | VERDICT |
|----|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 6  | AC INPUT CURRENT                              | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC:0.4A                                                | F:0.312A                                                                                                                                                                   | P       |
| 7  | MAX. INRUSH CURREN                            | I/P:230VAC<br>O/P: FULL LOAD                                                                                                                | SPEC:40A                                                 | F:33.273A                                                                                                                                                                  | P       |
| 8  | SET UP TIME                                   | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC:250ms                                               | F:132mS                                                                                                                                                                    | P       |
| 9  | HOLD UP TIME                                  | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC:50mS                                                | F:129mS                                                                                                                                                                    | P       |
| 10 | EFFICIENCY                                    | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC: A:71%<br>B:77%<br>C:73%<br>D:74%<br>E:75%<br>F:72% | A:72.12%<br>B:78.66%<br>C:74.84%<br>D:75.77%<br>E:76.60%<br>F:73.18%                                                                                                       | P       |
| 11 | OVER LOAD PROTECTION                          | I/P:230VAC<br>O/P:TESTING                                                                                                                   | SPEC:ABOVE 105%                                          | A:246%<br>B:269%<br>C:239%<br>D:286.5%<br>E:285%<br>F:230%                                                                                                                 | P       |
| 12 | OVER VOLTAGE PROTECTION                       | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC: V1:115%~135%<br>V2:115%~135%                       | A : V1: 123%<br>V2: 128%<br>B : V1: 124%<br>V2: 123%<br>C : V1: 124.4%<br>V2: 126%<br>D : V1: 121%<br>V2: 129%<br>E : V1: 124.3%<br>V2: 130.7%<br>F : V1: 124%<br>V2: 130% | P       |
| 13 | OVER TEMPERATURE PROTECTION & FAN ON/OFF TEST | I/P:230VAC<br>O/P:FULL LOAD                                                                                                                 | SPEC: U1 Tj 135°C TYPICALLY<br>POWER SHUTDOWN            | A: OTP:115°C                                                                                                                                                               | P       |
| 14 | GROUND LEAKAGE CURRENT                        | I/P:240VAC                                                                                                                                  | SPEC: L-FG--<0.5mA<br>N-FG--<0.5mA                       | A: L-FG:0.25mA<br>N-FG:0.24mA                                                                                                                                              | P       |
| 15 | INSULATION RESISTANCE                         | SPEC: O/P-FG 500VDC/100M Ohms MIN.<br>I/P-O/P 500VDC/100M Ohms MIN.<br>I/P-FG 500VDC/100M Ohms MIN.                                         |                                                          | A: O/P-FG >100M Ohms<br>I/P-O/P >100M Ohms<br>I/P-FG >100M Ohms                                                                                                            | P       |
| 16 | DIELECTRIC / WITHSTAND VOLTAGE                | SPEC: I/P- O/P: 3000VAC/ 1 sec<br>(10mA CUT-OFF)<br>I/P - FG: 1500VAC/ 1 sec<br>(10mA CUT-OFF)<br>O/P - FG: 500VAC/ 1 sec<br>(10mA CUT-OFF) |                                                          | A: I/P-O/P :1.8mA<br>I/P-FG :2.8mA                                                                                                                                         | P       |
| 17 | BURN-IN TEST                                  | I/P: 230VAC O/P:FULL LOAD<br>TA:23.6°C BURN-IN DURATION : 1 hrs                                                                             |                                                          | NON BREAK                                                                                                                                                                  | P       |

|          |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
|----------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------|----------|-----|------|--------|-----|--------------|--------|--------|----|-----------------|--------|--------|----|------------------|--------|--------|----|-----------|--------|--------|-----|----------------------|--------|--------|----|----------------------|--------|--------|----|-------------|--------|--------|---|
| 18       | ENVIRONMENT TEST<br>( SAMPLE A:)                                  | 1.LOW TEMPERATURE TEST<br>I/P:80 VAC                      O/P:FULL LOAD<br>AMBIENT TEMPERATURE:-8.7°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AFTER 1.33 hrs<br>POWER ON OK | P        |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
|          |                                                                   | 2.HIGH AMBIENT TEMPERATURE FULL LOAD TEST<br>I/P:230VAC                      O/P:FULL LOAD<br>AMBIENT TEMPERATURE:51.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AFTER 14 hrs<br>NON BREAK     |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
|          |                                                                   | 3.ACCELERATED LIFE TEST<br>I/P:267VAC                      O/P:FULL LOAD<br>POWER ON :3 min          POWER OFF :5 sec<br>AMBIENT TEMPERATURE:85°C<br>AMBIENT HUMIDITY:95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AFTER 4.5 hrs<br>NON BREAK    |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| 19       | TEMPERATURE RISE TEST<br>T rise OF PARTS                          | <div>A:    I/P :230VAC                      AFTER 1 hr BURN-IN<br/>O/P :FULL LOAD                      TA:23.6°C</div> <table><tr><td>POSITION</td><td>P/N</td><td>TEMP</td><td>T rise</td></tr><tr><td>BD1</td><td>BRIDGE DIODE</td><td>49.0°C</td><td>25.4°C</td></tr><tr><td>U1</td><td>MAIN TRANSISTOR</td><td>55.2°C</td><td>31.6°C</td></tr><tr><td>T1</td><td>MAIN TRANSFORMER</td><td>61.9°C</td><td>38.3°C</td></tr><tr><td>D7</td><td>O/P DIODE</td><td>63.8°C</td><td>40.2°C</td></tr><tr><td>C14</td><td>O/P FILTER CAPACITOR</td><td>43.4°C</td><td>19.8°C</td></tr><tr><td>C5</td><td>I/P FILTER CAPACITOR</td><td>36.1°C</td><td>12.5°C</td></tr><tr><td>D5</td><td>CLAMP DIODE</td><td>52.4°C</td><td>28.8°C</td></tr></table> |                               |          | POSITION | P/N | TEMP | T rise | BD1 | BRIDGE DIODE | 49.0°C | 25.4°C | U1 | MAIN TRANSISTOR | 55.2°C | 31.6°C | T1 | MAIN TRANSFORMER | 61.9°C | 38.3°C | D7 | O/P DIODE | 63.8°C | 40.2°C | C14 | O/P FILTER CAPACITOR | 43.4°C | 19.8°C | C5 | I/P FILTER CAPACITOR | 36.1°C | 12.5°C | D5 | CLAMP DIODE | 52.4°C | 28.8°C | P |
| POSITION | P/N                                                               | TEMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T rise                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| BD1      | BRIDGE DIODE                                                      | 49.0°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 25.4°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| U1       | MAIN TRANSISTOR                                                   | 55.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 31.6°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| T1       | MAIN TRANSFORMER                                                  | 61.9°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 38.3°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| D7       | O/P DIODE                                                         | 63.8°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 40.2°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| C14      | O/P FILTER CAPACITOR                                              | 43.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 19.8°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| C5       | I/P FILTER CAPACITOR                                              | 36.1°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12.5°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| D5       | CLAMP DIODE                                                       | 52.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 28.8°C                        |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| 20       | LIFE CYCLE                                                        | A: SUPPOSE C14 IS THE MOST CRITICAL COMPONENT<br>I/P:230VAC    O/P:FULL LOAD    Ta:23.6°C    Tc14:43.4°C    Life: 424924 hrs<br>I/P:230VAC    O/P:FULL LOAD    Ta:51.2°C    Tc14:65.4°C    Life: 92479 hrs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |          | P        |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| 21       | CRITICAL COMPONENT RECORD<br>( FOR QC INSPECTION REFERENCE ONLY ) | A: FUSE : T2.5AL/250VAC UL<br>BRIDGE DIODE : KBP208G 2A/800V GLASS<br>LINE FILTER : LF TF-416 ET-20V<br>TRANSFOMER : MT TF-426 EI-28<br>POWER SWITCHER : PHIL TOP-223Y<br>OUTPUT DIODE : C82-004 TO-220<br>OUTPUT CAPACITOR : 1000uF/25V ,LL 105°C, 5Khrs<br>INPUT CAPACITOR : HITACHI 82uF/400V,85°C HP3<br>P.C.B : PD-25-R1,CEM-3 2 OZ SS                                                                                                                                                                                                                                                                                                                                                                                                    |                               |          |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| DATE     | SAMPLE                                                            | TEST RESULT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TEST                          | APPROVAL |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| 980417   | PD-25                                                             | PASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | H.C.LIOU                      | Max Lin  |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |
| 980930   | PD-2503                                                           | PASS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | H.C.LIOU                      | Max Lin  |          |     |      |        |     |              |        |        |    |                 |        |        |    |                  |        |        |    |           |        |        |     |                      |        |        |    |                      |        |        |    |             |        |        |   |