



## 25W AC-DC Dual Output Desktop

## P25B-D series



### ■ Features :

- 2 pole AC inlet IEC320-C8
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- Fix switching frequency and regulation
- Topology: Top switch circuit
- LED indicator for power on
- Approvals: UL / CUL / TUV / CB
- 1 year warranty

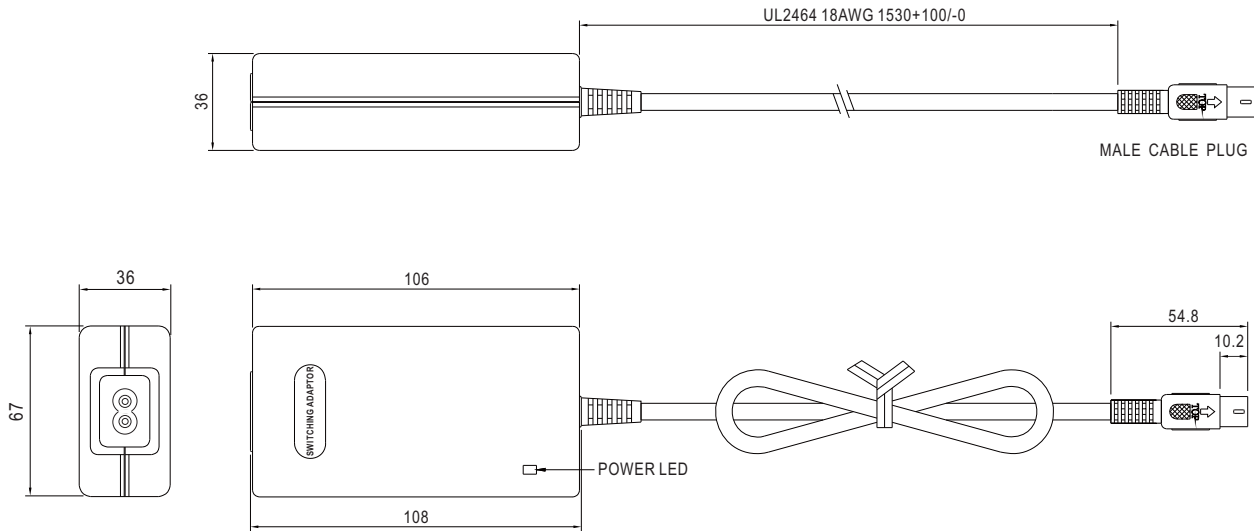


### SPECIFICATION

| ORDER NO.                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | P25B13-R1B                                                                                                              |                                                                                    | P25B14-R1B |           | P25B16-R1B |            |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------|-----------|------------|------------|
| OUTPUT                    | SAFETY MODEL NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PSU25B-13                                                                                                               |                                                                                    | PSU25B-14  |           | PSU25B-16  |            |
|                           | DC VOLTAGE      Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5V                                                                                                                      | 12V                                                                                | 5V         | 15V       | 5V         | 24V        |
|                           | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.5A                                                                                                                    | 1.0A                                                                               | 2.5A       | 0.8A      | 2.5A       | 0.5A       |
|                           | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.5 ~ 2.5A                                                                                                              | 0.1 ~ 1.0A                                                                         | 0.5 ~ 2.5A | 0.1 ~0.8A | 0.5 ~ 2.5A | 0.1 ~ 0.5A |
|                           | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 25W                                                                                                                     |                                                                                    | 25W        |           | 25W        |            |
|                           | RIPPLE & NOISE (max.) Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 50mVp-p                                                                                                                 | 100mVp-p                                                                           | 50mVp-p    | 100mVp-p  | 50mVp-p    | 100mVp-p   |
|                           | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Fixed                                                                                                                   |                                                                                    |            |           |            |            |
|                           | VOLTAGE TOLERANCE Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±5.0%                                                                                                                   | ±5.0%                                                                              | ±5.0%      | ±5.0%     | ±5.0%      | ±5.0%      |
|                           | LINE REGULATION      Note.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ±1.0%                                                                                                                   | ±1.0%                                                                              | ±1.0%      | ±1.0%     | ±1.0%      | ±1.0%      |
|                           | LOAD REGULATION      Note.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ±4.0%                                                                                                                   | ±4.0%                                                                              | ±4.0%      | ±4.0%     | ±4.0%      | ±4.0%      |
| SETUP, RISE, HOLD UP TIME |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 200ms, 50ms, 16ms at full load                                                                                          |                                                                                    |            |           |            |            |
| INPUT                     | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 90 ~ 264VAC    135 ~ 370VDC                                                                                             |                                                                                    |            |           |            |            |
|                           | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 47 ~ 63Hz                                                                                                               |                                                                                    |            |           |            |            |
|                           | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 70%                                                                                                                     |                                                                                    | 72%        |           | 74%        |            |
|                           | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.8A / 100VAC                                                                                                           |                                                                                    |            |           |            |            |
|                           | INRUSH CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 60A / 230VAC                                                                                                            |                                                                                    |            |           |            |            |
|                           | LEAKAGE CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.25mA / 240VAC                                                                                                         |                                                                                    |            |           |            |            |
| PROTECTION                | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 115 ~ 160% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                                                                    |            |           |            |            |
|                           | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | +5V: 110 ~ 140% rated output voltage<br>Protection type : Shut down o/p voltage, re-power on to recover                 |                                                                                    |            |           |            |            |
|                           | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IC1Tj135°C<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down               |                                                                                    |            |           |            |            |
| ENVIRONMENT               | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0 ~ +40°C (Refer to "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<br>(Note. 7) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UL1950, CSA22.2, EN60950-1 approved                                                                                     |                                                                                    |            |           |            |            |
|                           | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | I/P-O/P:3KVAC                                                                                                           |                                                                                    |            |           |            |            |
|                           | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH                                                                              |                                                                                    |            |           |            |            |
|                           | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance to EN55022(CISPR22) class B                                                                                  |                                                                                    |            |           |            |            |
|                           | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance to EN61000-3-2,3                                                                                             |                                                                                    |            |           |            |            |
| OTHERS                    | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Compliance to EN61000-4-2,3,4,5,6,11, light industry level, criteria A                                                  |                                                                                    |            |           |            |            |
|                           | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 520K hrs min.    MIL-HDBK-217F (25°C)                                                                                   |                                                                                    |            |           |            |            |
|                           | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 108*67*36mm (L*W*H)                                                                                                     |                                                                                    |            |           |            |            |
|                           | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.3kg; 54pcs/ 20kg/ CARTON                                                                                              |                                                                                    |            |           |            |            |
|                           | CONNECTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PLUG                                                                                                                    | Standard type R1B: DIN 5PIN for stock ; Other type available by customer requested |            |           |            |            |
|                           | CABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Standard type UL2464 18AWG*3C shield wire*1C with 5fts length for stock; Other type available by customer requested     |                                                                                    |            |           |            |            |
| NOTE                      | 1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.<br>2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.<br>3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.<br>4.Tolerance: includes set up tolerance, line regulation, load regulation.<br>5.Line regulation is measured from low line to high line at rated load.<br>6.Load regulation is measured from 20% to 100% rated load.<br>7.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. |                                                                                                                         |                                                                                    |            |           |            |            |

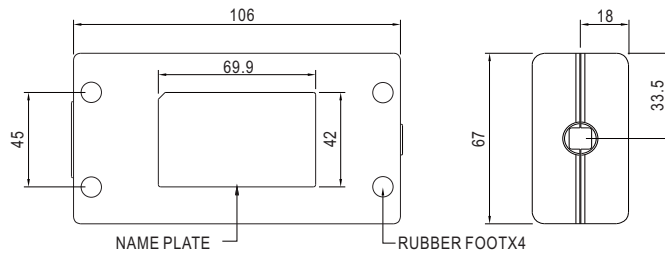
## Mechanical Specification

Unit:mm



## Plug Assignment

Standard plug: R1B (option)

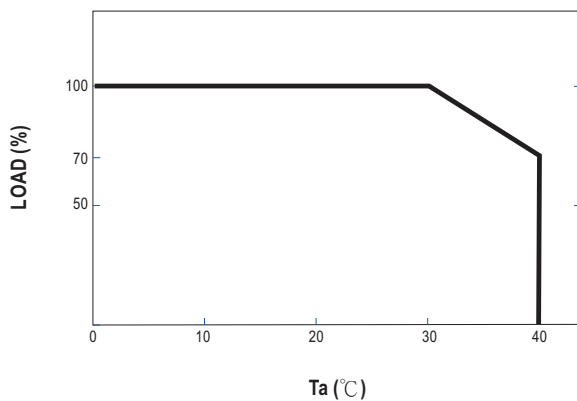


| PIN NO | OUTPUT |
|--------|--------|
| 1      | COM    |
| 2      | COM    |
| 3      | +5VDC  |
| 4      | COM    |
| 5      | +Vout  |

AC FG

45°

## Derating Curve



## Static Characteristics

