

## Features :

- Universal AC input / Full range
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 3"x2" compact size
- LED indicator for power on
- No load power consumption<0.3W
- 3 years warranty



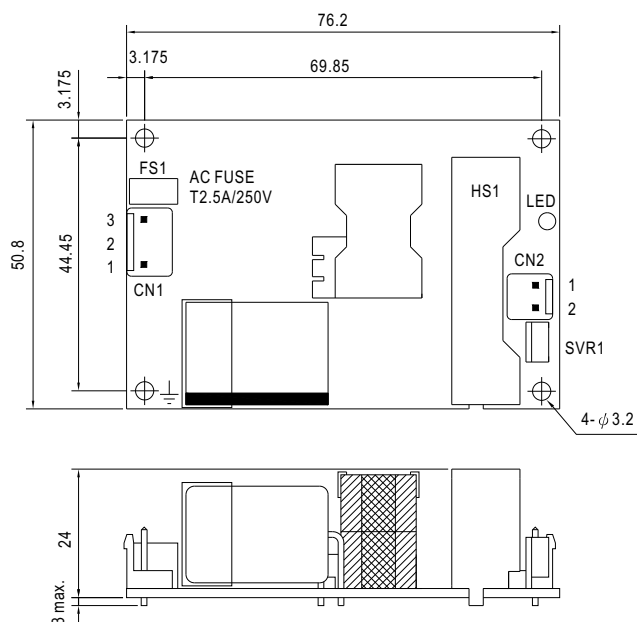
## SPECIFICATION

| MODEL                 |                                             | EPS-25-3.3                                                                                                              | EPS-25-5    | EPS-25-7.5   | EPS-25-12    | EPS-25-15      | EPS-25-24    | EPS-25-27      | EPS-25-36    | EPS-25-48    |
|-----------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|--------------|--------------|----------------|--------------|----------------|--------------|--------------|
| OUTPUT                | DC VOLTAGE                                  | 3.3V                                                                                                                    | 5V          | 7.5V         | 12V          | 15V            | 24V          | 27V            | 36V          | 48V          |
|                       | RATED CURRENT                               | 5A                                                                                                                      | 5A          | 3.4A         | 2.1A         | 1.7A           | 1.05A        | 0.95A          | 0.7A         | 0.53A        |
|                       | CURRENT RANGE                               | 0 ~ 5.5A                                                                                                                | 0 ~ 5.5A    | 0 ~ 3.74A    | 0 ~ 2.34A    | 0 ~ 1.87A      | 0 ~ 1.17A    | 0 ~ 1.05A      | 0 ~ 0.78A    | 0 ~ 0.59A    |
|                       | RATED POWER                                 | 16.5W                                                                                                                   | 25W         | 25.5W        | 25.2W        | 25.5W          | 25.2W        | 25.65W         | 25.2W        | 25.44W       |
|                       | PEAK LOAD(10sec.) <small>Note.6</small>     | 18.15W                                                                                                                  | 27.5W       | 28.05W       | 28.08W       | 28.05W         | 28.08W       | 28.35W         | 28.08W       | 28.32W       |
|                       | RIPPLE & NOISE (max.) <small>Note.2</small> | 60mVp-p                                                                                                                 | 60mVp-p     | 80mVp-p      | 100mVp-p     | 100mVp-p       | 180mVp-p     | 180mVp-p       | 200mVp-p     | 240mVp-p     |
|                       | VOLTAGE ADJ. RANGE                          | 3.1 ~ 3.6V                                                                                                              | 4.75 ~ 5.5V | 7.13 ~ 8.25V | 10.8 ~ 13.5V | 13.5 ~ 16.5V   | 21.6 ~ 27V   | 24.3 ~ 29.7V   | 32.4 ~ 39.6V | 43.2 ~ 52.8V |
|                       | VOLTAGE TOLERANCE <small>Note.3</small>     | ±2.0%                                                                                                                   | ±2.0%       | ±2.0%        | ±1.0%        | ±1.0%          | ±1.0%        | ±1.0%          | ±1.0%        | ±1.0%        |
|                       | LINE REGULATION                             | ±0.5%                                                                                                                   | ±0.5%       | ±0.5%        | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%        |
|                       | LOAD REGULATION                             | ±1.0%                                                                                                                   | ±1.0%       | ±1.0%        | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%        |
| INPUT                 | SETUP, RISE TIME                            | 1000ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load                                                                    |             |              |              |                |              |                |              |              |
|                       | HOLD UP TIME (Typ.)                         | 50ms/230VAC 16ms/115VAC at full load                                                                                    |             |              |              |                |              |                |              |              |
|                       | VOLTAGE RANGE <small>Note.5</small>         | 85 ~ 264VAC 120 ~ 370VDC                                                                                                |             |              |              |                |              |                |              |              |
|                       | FREQUENCY RANGE                             | 47 ~ 63Hz                                                                                                               |             |              |              |                |              |                |              |              |
|                       | EFFICIENCY (Typ.)                           | 79%                                                                                                                     | 81%         | 83%          | 86%          | 87%            | 88%          | 89%            | 89%          | 90%          |
|                       | AC CURRENT (Typ.)                           | 0.6A/115VAC 0.4A/230VAC                                                                                                 |             |              |              |                |              |                |              |              |
| PROTECTION            | INRUSH CURRENT (Typ.)                       | COLD START 35A/230VAC                                                                                                   |             |              |              |                |              |                |              |              |
|                       | LEAKAGE CURRENT                             | <1mA/240VAC                                                                                                             |             |              |              |                |              |                |              |              |
|                       | OVER LOAD                                   | 115 ~ 170% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |             |              |              |                |              |                |              |              |
| ENVIRONMENT           | OVER VOLTAGE                                | 3.7 ~ 4.6V                                                                                                              | 5.6 ~ 6.75V | 8.63 ~ 10.5V | 14 ~ 17V     | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 31.05 ~ 36.45V | 39.7 ~ 46.8V | 53.3 ~ 64.8V |
|                       | WORKING TEMP.                               | -30 ~ +70°C (Refer to "Derating Curve")                                                                                 |             |              |              |                |              |                |              |              |
|                       | WORKING HUMIDITY                            | 20 ~ 90% RH non-condensing                                                                                              |             |              |              |                |              |                |              |              |
| SAFETY & EMC (Note 4) | STORAGE TEMP., HUMIDITY                     | -40 ~ +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                                                 |             |              |              |                |              |                |              |              |
| OTHERS                | 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 / 25°C / 70% RH                                                              |             |              |              |                |              |                |              |              |
|                       | EMC EMISSION                                | Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3                                                                 |             |              |              |                |              |                |              |              |
|                       | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level, criteria A                                       |             |              |              |                |              |                |              |              |
| NOTE                  | MTBF                                        | 655.3Khrs min. MIL-HDBK-217F (25°C)                                                                                     |             |              |              |                |              |                |              |              |
|                       | DIMENSION                                   | 76.2*50.8*24mm (L*W*H)                                                                                                  |             |              |              |                |              |                |              |              |
|                       | PACKING                                     | 0.081Kg; 120pcs/10.7Kg/0.97CUFT                                                                                         |             |              |              |                |              |                |              |              |

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
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.
5. Derating may be needed under low input voltage. Please check the static characteristics for more details.
6. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.

## Mechanical Specification

Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | AC/N       | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2       | No Pin     |                       |                                |
| 3       | AC/L       |                       |                                |

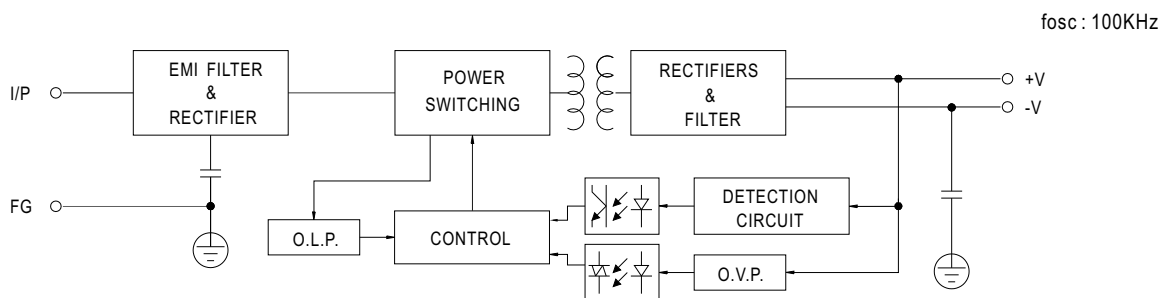
DC Output Connector (CN2) : JST B2P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | -V         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2       | +V         |                       |                                |

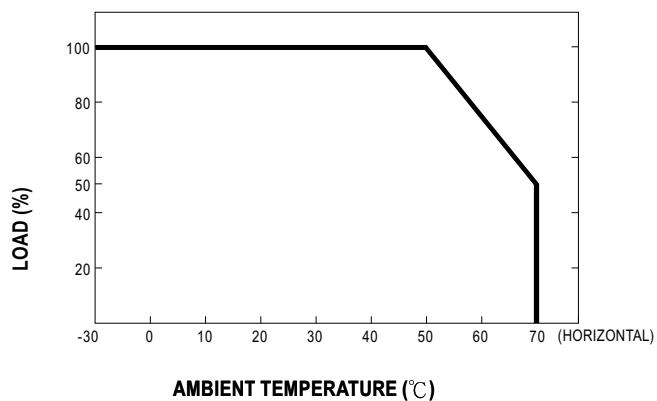
⚠ HS1 must have safety isolation distance with system case.

⚡ : Grounding required

## Block Diagram



## Output Derating



## Static Characteristics

