



# Installation Manual

- **Type : Open Frame (PCB) Type Switching Power Supply**

(Families: ELP, EPP, EPS, IRM, LOP, LPP, LPS, MFM, MPM, MPQ, PD, PID, PPT, PS, PT, RPD, RPS, RPT )

- **Introduction**

An open frame (PCB) type switching power supply is a power supply designed to be integrated or installed into a system enclosure. Mean Well's open frame (PCB) type power supplies include on board, general PCB, green PCB, and medical PCB types.

- **Installation**

- (1) Before commencing any installation or maintenance work, please disconnect your system from the utility. Ensure that it cannot be re-connected inadvertently!
- (2) At least 5mm insulation distance on the bottom of the unit should be kept and a Mylar film should be added between the unit and the system. In addition, keep enough insulation distance, 10mm for general type/15mm for medical type, around the unit.
- (3) Power supplies greater than 120W may require a forced air/fan for cooling. Please refer to specifications to receive a minimum air intensity and air-flow direction.
- (4) Allow good ventilation for the unit in use to prevent it from overheating. Also, a 10-15 cm clearance must be kept when the adjacent device is a heat source.
- (5) Mounting orientations other than standard orientation or operate under high ambient temperature may increase the internal component temperature and will require a de-rating in output current. Please refer to the specification sheets to receive the optimum mounting position and information about the de-rating curve.
- (6) Recommended wires are shown as below.

| AWG   | 18   | 16    | 14     | 12     | 10     | 8      |
|---|------|-------|--------|--------|--------|--------|
| Rated Current of Equipment (Amp)  | 6A   | 6-10A | 10-16A | 16-25A | 25-32A | 32-40A |
| Cross-section of Lead(mm <sup>2</sup> )   | 0.75 | 1.00  | 1.5    | 2.5    | 4      | 6      |
| Note:Current each wire carries should be de-rated to 80% of the current suggested above when using 5 or more wires connected to the unit. |      |       |        |        |        |        |

- (7) The ambient temperature derating of 3.5°C/1000m with fan less models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- (8) Please refer to the warranty statement on MEAN WELL's website at <http://www.meanwell.com>
- (9) For any application note and IP water proof function installation caution, please refer our user manual before using. [https://www.meanwell.com/Upload/PDF/LED\\_EN.pdf](https://www.meanwell.com/Upload/PDF/LED_EN.pdf)
- (10) Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>
- (11) For other information about the products, please refer to [www.meanwell.com](http://www.meanwell.com) for details.
- (12) For other information about mating housing, please refer to product specification.
- (13) For other information about soldering temperature, please refer to product specification.



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## ● **Warning / Caution !!**

- (1) Risk of electrical shock and energy hazard. All failure should be examined by a qualified technician. Please do not try to fix the power supply by yourself!
- (2) Please do not install power supplies in places with high moisture or near the water.
- (3) Please do not install power supplies in places with high ambient temperature or near fire source. Please refer to the specifications about the maximum ambient temperature limitations.
- (4) Output current and output wattage must not exceed the rated values on specifications.
- (5) The ground (FG) must be connected to earth ground.
- (6) All MW's PSUs are designed in accordance with EMC regulations and the related test reports are available by request. Since they are belong to component power supplies and will be installed inside system enclosure, when they are integrated into a system, the EMC characteristics of the end system must be re-verified again.

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## Declaration of China RoHS Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China RoHS, an Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products.

### Environment Friendly Use Period Label

|  |   |
|--|---|
|  | <p>Observing SJT 11364-2014, Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products</p> <p>Observing SJ/Z 11388-2009, General Guidelines of Environment-friendly Use Period of Electronic Information Products Appendix B, adopting table look-up to verify the Environment Friendly Use Period</p> |
|--|---|

### Names and Contents of Hazardous Substances Lists

| Part Name               | Hazardous Substances |                 |                 |   |                                      |   |
|-------------------------|----------------------|-----------------|-----------------|---|--------------------------------------|---|
|                         | Lead<br>(Pb)         | Mercury<br>(Hg) | Cadmium<br>(Cd) | Hexavalent<br>chromium<br>(Cr <sup>6+</sup> ) | Polybrominated<br>biphenyls<br>(PBB) | Polybrominated<br>diphenyl ethers<br>(PBDE) |
| PCB and its components  | X                    | O               | X               | O   | O                                    | O   |
| Metal structure parts   | X                    | O               | O               | O   | O                                    | O   |
| Plastic structure parts | O                    | O               | O               | O   | O                                    | O   |
| Accessories             | O                    | O               | O               | O   | O                                    | O   |
| Cables                  | X                    | O               | O               | O   | O                                    | O   |

O: The concentration of the hazardous substances within the homogeneous material of that product is less than the concentration limits set by GB/T 26572-2011.  
X: The concentration of the hazardous substances within the homogeneous material of that product is over the concentration limits set by GB/T 26572-2011; however, it follows the standard advised by 2011/65/EU.



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## Declaration of China VOC Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China's Standardization Administration Releases VOC Standards

| Standard No.  | Name of the Standard   |
|---------------|--|
| GB 30981-2020 | Limit of harmful substances of industrial protective coatings    |
| GB 33372-2020 | Limits for volatile organic compounds content in adhesive        |
| GB 38507-2020 | Limits for volatile organic compounds (VOCs) In printing ink     |
| GB 38508-2020 | Limits for volatile organic compounds content in cleaning agents |

ISO-9001 CERTIFIED

*Your Reliable Power Partner*



## Declaration of Five PBT TSCA Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL hereby confirms that MEAN WELL product series comply with Use and Risk Management for Five PBT Chemicals under TSCA section 6(h)

| CAS No.    | Substance Name                                      |
|------------|---|
| 1163-19-5  | Decabromodiphenyl ether (DecaBDE)                   |
| 68937-41-7 | Phenol, isopropylated, phosphate (3:1)<br>PIP (3:1) |
| 732-26-3   | 2,4,6-Tris (tert-butyl) phenol (2,4,6-TTBP)         |
| 133-49-3   | Pentachlorothiophenol (PCTP)                        |
| 87-68-3    | Hexachlorobutadiene (HCBD)                          |