

# 常州市创联电源科技股份有限公司

Changzhou Chuanglian Power Supply Techology Corperation

## 承认书

### CERTIFICATE FOR CONFIRMATION

|                        |         |
|------------------------|---------|
| 客户名称 ( CUSTOMER ) :    |         |
| 客户料号 ( PART NO. ) :    |         |
| 产品名称 ( PART NAME ) :   | 开关电源    |
| 产品规格 ( DESCRIPTION ) : | A-50FAL |
| 编制日期 ( DATE ) :        |         |

|                  |                    |                          |
|------------------|--------------------|--------------------------|
| 制定<br>(Engineer) | 审核<br>(Supervisor) | 核准<br>(Engineer Manager) |
|                  |                    |                          |
| 承认<br>(Engineer) | 审核<br>(Supervisor) | 核准<br>(Engineer Manager) |
|                  |                    |                          |

注:此承认书一式二份, 请签核完后寄回我司一份保存。  
Remark:This certification is in duplicate,please send us a copy signing.

|                                                                                                                                                               |                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 厂商: 常州市创联电源科技股份有限公司<br>地址:江苏省常州市钟楼经济开发区童子河西路8号<br><br>电话:86-519-85215050, 85210525<br>传真:86-519-85215252, 85215770<br>网址:www.haitaik.com<br>邮箱:ad@haitaik.com | Mfr.:Changzhou Chuanglian Power Supply Tech Corp<br>Address:No.8,Tongzihe West Road,Zhonglou Economic Development Zone,Changzhou,Jiangsu 213024,China<br><br>Tel:86-519-85215050, 85210525<br>Fax:86-519-85215252, 85215770<br>Web:www.haitaik.com<br>E-mail:ad@haitaik.com |
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编号:



# A-50FAL Switching Power Supply



## ◆ Features:

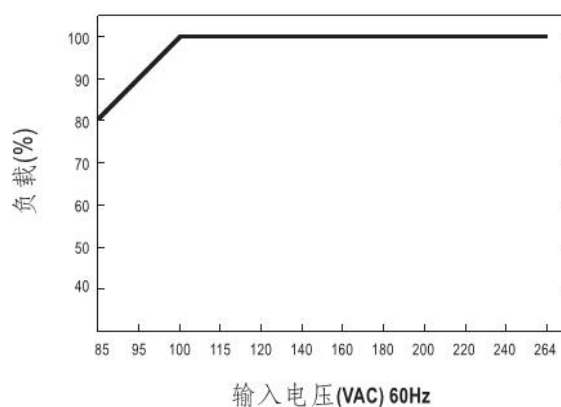
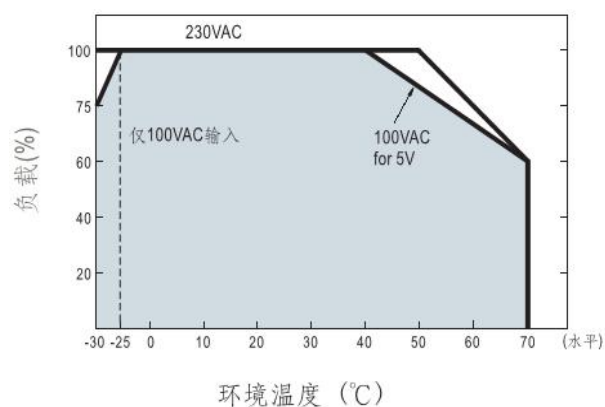
- Universal AC input
- No Load Power Consumption<0.2W
- Protections: short circuit/overload
- Cooling by free air convection
- 100% pass aging test
- 3 years warranty

## General Specifications

| Model No.       |                                                                                                                                                                                                                                                                                                                                                                                                                                              | A-50FAL-5                                                | A-50FAL-12 | A-50FAL-24 | A-50FAL-36 | A-50FAL-48 |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------|------------|------------|------------|
| Output          | DC voltage                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5V                                                       | 12V        | 24V        | 36V        | 48V        |
|                 | Rated current                                                                                                                                                                                                                                                                                                                                                                                                                                | 10A                                                      | 4.2A       | 2.2A       | 1.45A      | 1.1A       |
|                 | Current Range                                                                                                                                                                                                                                                                                                                                                                                                                                | 0~10A                                                    | 0~4.2A     | 0~2.2A     | 0~1.45A    | 0~1.1A     |
|                 | Rated power                                                                                                                                                                                                                                                                                                                                                                                                                                  | 50W                                                      | 50.4W      | 52.8W      | 52.2W      | 52.8W      |
|                 | Ripple & Noise                                                                                                                                                                                                                                                                                                                                                                                                                               | 80mVp-p                                                  | 120mVp-p   | 150mVp-p   | 200mVp-p   | 200mVp-p   |
|                 | Voltage regulation range                                                                                                                                                                                                                                                                                                                                                                                                                     | ±10.0%                                                   |            |            |            |            |
|                 | Voltage accuracy                                                                                                                                                                                                                                                                                                                                                                                                                             | ±1.0%                                                    |            |            |            |            |
|                 | Line regulation                                                                                                                                                                                                                                                                                                                                                                                                                              | ±0.5%                                                    |            |            |            |            |
|                 | Load adjustment rate                                                                                                                                                                                                                                                                                                                                                                                                                         | ±0.5%                                                    |            |            |            |            |
|                 | Rise                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1000ms, 30ms/230VAC    Full Load                         |            |            |            |            |
|                 | Hold up time (Typ)                                                                                                                                                                                                                                                                                                                                                                                                                           | 30ms/230VAC    12ms/115VAC 100% Load                     |            |            |            |            |
| Input           | Voltage range                                                                                                                                                                                                                                                                                                                                                                                                                                | 100~240VAC;                                              |            |            |            |            |
|                 | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                    | 47~63HZ                                                  |            |            |            |            |
|                 | PFC (Typ)                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                          |            |            |            |            |
|                 | Efficiency (Typ)                                                                                                                                                                                                                                                                                                                                                                                                                             | 83%                                                      | 85%        | 88%        | 89%        | 90%        |
|                 | Alternating current                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.95A/115VAC,    0.56A/230VAC                            |            |            |            |            |
|                 | Inrush current (Typ)                                                                                                                                                                                                                                                                                                                                                                                                                         | 45A/230VAC                                               |            |            |            |            |
|                 | Leakage current                                                                                                                                                                                                                                                                                                                                                                                                                              | <3.5mA/240VAC                                            |            |            |            |            |
| Protecti<br>ons | Overload                                                                                                                                                                                                                                                                                                                                                                                                                                     | 110~150% of rated output                                 |            |            |            |            |
|                 | Short circuit                                                                                                                                                                                                                                                                                                                                                                                                                                | Hiccup mode, auto-recovery                               |            |            |            |            |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |            |            |            |            |
| Envirome<br>nt  | Working temp.                                                                                                                                                                                                                                                                                                                                                                                                                                | -30℃~+50℃ (refer to output derating curve)               |            |            |            |            |
|                 | Working humidity                                                                                                                                                                                                                                                                                                                                                                                                                             | 20~95%RH non condensing                                  |            |            |            |            |
|                 | Storage temp.                                                                                                                                                                                                                                                                                                                                                                                                                                | -40℃~+85℃                                                |            |            |            |            |
|                 | Storage humidity                                                                                                                                                                                                                                                                                                                                                                                                                             | 10~95%RH non condensing                                  |            |            |            |            |
|                 | temp. coefficient                                                                                                                                                                                                                                                                                                                                                                                                                            | ±0.03%/℃ (0~50℃)                                         |            |            |            |            |
|                 | Vibration resistance                                                                                                                                                                                                                                                                                                                                                                                                                         | 10~500Hz, 2G, 10min/cycle, X、Y、Z 60min in each direction |            |            |            |            |
| Safety          | Safety standards                                                                                                                                                                                                                                                                                                                                                                                                                             | design according to GB4943-2001, UL1012                  |            |            |            |            |
|                 | withstand voltage                                                                                                                                                                                                                                                                                                                                                                                                                            | I/P-O/P:3.0KV AC、I/P-FG: 2.0KV AC、O/P-FG: 0.5KV AC       |            |            |            |            |
|                 | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                         | I/P-O/P、I/P-FG、O/P-FG: 100MΩ/500VDC                      |            |            |            |            |
|                 | EMC                                                                                                                                                                                                                                                                                                                                                                                                                                          | EN55022 CLASS B                                          |            |            |            |            |
| Others          | Lifetime                                                                                                                                                                                                                                                                                                                                                                                                                                     | 100,000 hours(25℃)                                       |            |            |            |            |
|                 | Size                                                                                                                                                                                                                                                                                                                                                                                                                                         | 99×82×30    (L*W*H)                                      |            |            |            |            |
|                 | Weight                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.23Kg/pc                                                |            |            |            |            |
| Remarks         | *In order to extend the lifetime, it is recommended to configure the load no more than 30% of the remaining allowance. For example: the power of the device requires 100W, then use the power of less than 130W.<br>*Ripple test method: 20MHz oscilloscope in power output terminal test, oscilloscope probe wire length is not more than 12mm, and input parallel 47uF electrolytic capacitors and 0.1uF high frequency capacitance probe. |                                                          |            |            |            |            |



## Load temperature drop curve

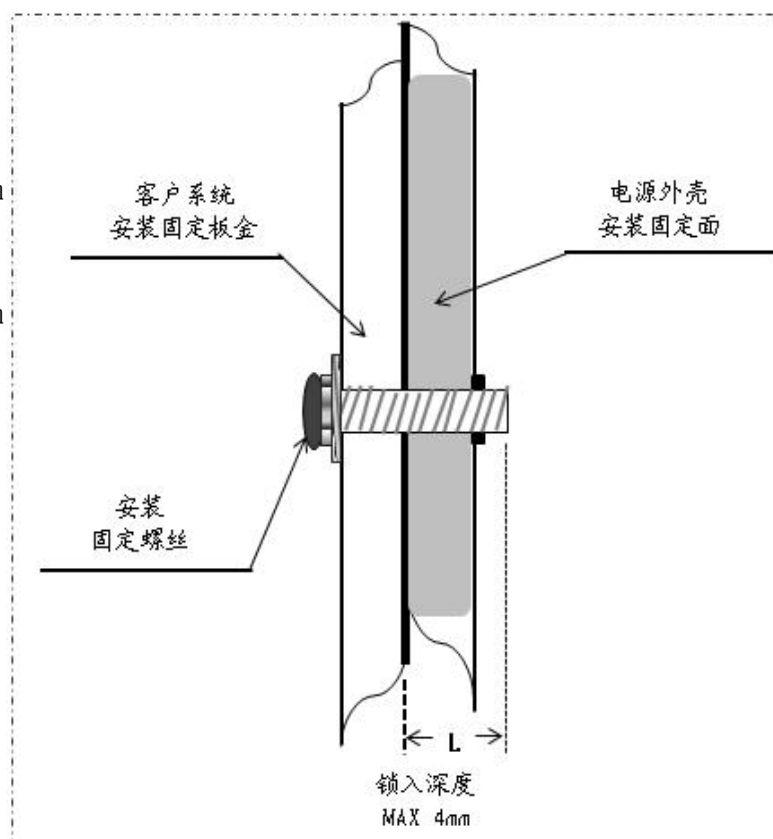


## Installation

### 警示

### Warning

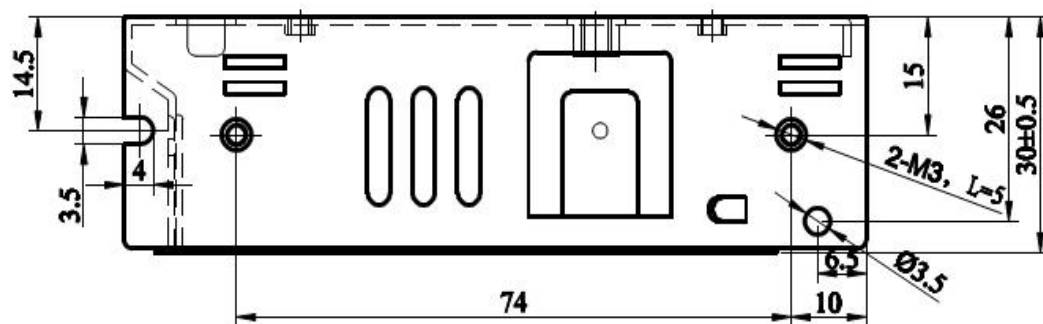
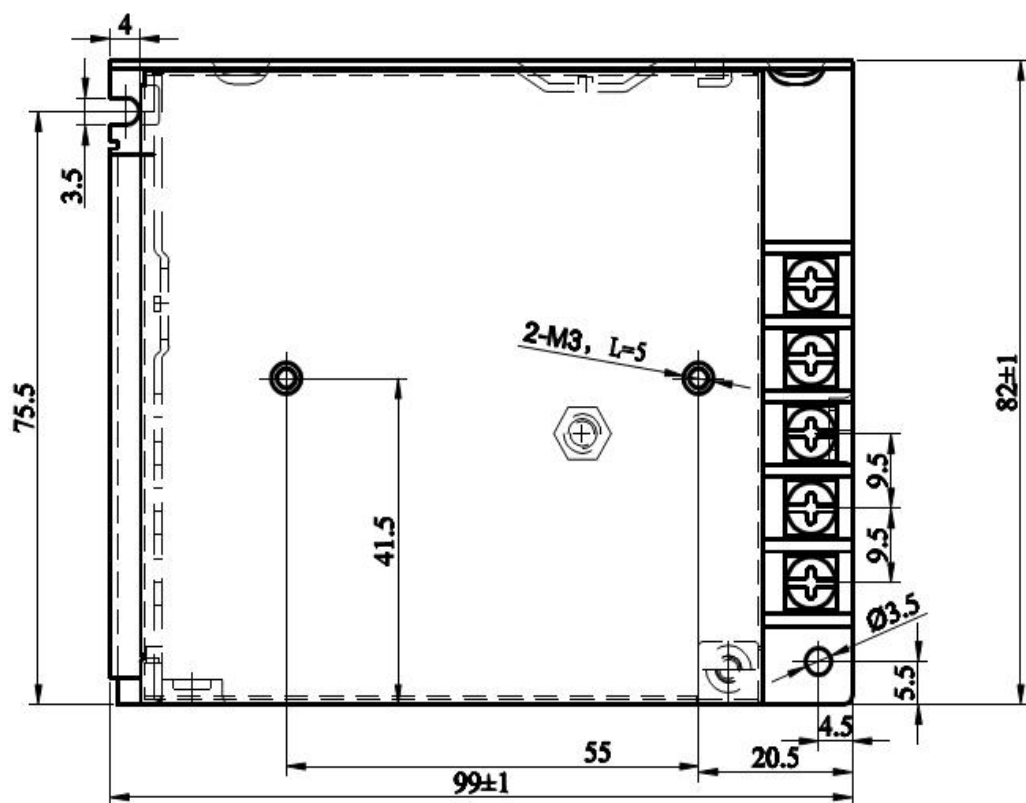
- 使用安装螺丝M3\*6mm,  
Using the mounting screws M3\*6mm
- 深入外壳螺丝深度MAX 4mm,  
Deep housing screw depth Max 4mm
- 详见右图  
As shown on the right





# A-50FAL Switching Power Supply

Drawing:



| Pin No. | Assignment | Pin No. | Assignment     |
|---------|------------|---------|----------------|
| 1       | AC/L       | 4       | DC output (V-) |
| 2       | AC/N       | 5       | DC output (V+) |
| 3       | FG         |         |                |