



# 深圳市华浩德电子有限公司

Shenzhen City Fahold Electronics CO.,LTd.

地址：深圳市宝安区石岩街道石龙社区石环路 4 号星光工业园 C 栋二、四、五、六楼

Address: Floor 2,4,5, 6 Building C, Starlight Industrial Park, NO. 4, Shihuan Road, Shilong Community, Shiyan Town, Bao'an District, Shenzhen, China.

|                        |   |
|------------------------|---|
| Product Name:<br>产品名称  | HN42W-02 LED driver   |
|                        | HN42W-02-E1050 FCC <input checked="" type="checkbox"/> UL <input checked="" type="checkbox"/> |
| Product Model:<br>产品型号 |   |

版本: **REV.: 00**

| SIGNATURE AND SEAL BY US /我司签字盖章 |               |                |
|----------------------------------|---------------|----------------|
| 日期:                              | 2017-7-12     |                |
| Prepared By 编制                   | Checked By 审核 | Approved By 批准 |
|                                  |               |                |

Please confirm and send it back with signature within 7 days. Otherwise we will assume your acceptance. And if any quality dissent, will execute according to this product specification.  
 请确认后七日内回签，如不回签则视贵公司默认接受，在发生品质异常时按此份产品规格书执行。

**CUSTOMER APPROVED SIGNATURE /客户承认盖章**

|                          |       |          |
|--------------------------|-------|----------|
| Customer Model No. 客户型号: |       |          |
| 日期:                      |       |          |
| ENG./工程                  | QA/品管 | OTHER/其他 |
|                          |       |          |

Comments 建议:



**ECN History ECN 变更**

| Rev. | Description of Change 修改描述 |           | Changed Date<br>修改日期 | Notes 备注 |
|------|----------------------------|-----------|----------------------|----------|
|      | Before 修改前                 | After 改前后 |                      |          |
| A.1  | Original Release 首次发行      | ---       | 2017-7-8             |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |
|      |                            |           |                      |          |



## Feature 特征:

- ◆ Constant current design. 恒流设计
- ◆ Adjust output current by dialing button on the output side  
可用拨码开关调整输出电流
- ◆ 3 in 1 dimming mode:0-10V,PWM,RX. 三合一调光模式: 0-10V,PWM,RX
- ◆ Smoothly dimming(0-100%),can dim to off. 调光细腻,且可以关断(0-100%)
- ◆ UL FCC Certified. UL FCC认证
- ◆ PROTECTION: Short Circuit, Open Circuit  
保护: 短路保护, 开路保护
- ◆ Surge protection: 1KV.浪涌保护1KV
- ◆ SELV safe output design SELV. 安全输出设计

## Application 应用

- ◆ Down light, Panel light, strip light.筒灯, 面板灯, 灯带

## Introduction 介绍

This Document describes in detail the electric property, structure performance and environmental specifications etc of a 44.1W constant current LED driver with the function of three-in-one dimming(0-10V/PWM/RX) and adjust current by dialing button on the output side. This LED driver is only suitable for LED load.

此份资料详细描述了一款 44.1W 带拨码调电流、0-10V 调光的 LED 恒流驱动电源的电器性能, 环境要求等。此款电源只适用于 LED 负载。

## Model and Key parameters 型号和关键参数

| Model 型号       | Power(W)<br>功率 | Output Voltage (Vdc)<br>输出电压 | Output current (mA)<br>输出电流 | Efficiency(Typ.)<br>效率 |
|----------------|----------------|------------------------------|-----------------------------|------------------------|
| HN42W-02-E1050 | 44.1           | 25-42                        | 1050                        | 86.9%                  |
|                |                |                              |                             |                        |
|                |                |                              |                             |                        |
|                |                |                              |                             |                        |
|                |                |                              |                             |                        |
|                |                |                              |                             |                        |
|                |                |                              |                             |                        |

Note: input 230Vac test for output 36Vdc 注意:输入 230Vac 测试,输出 36Vdc

**■ Technical data 技术参数**

| Input characteristics 输入特性     |   |
|--------------------------------|---|
| Input Voltage 输入电压             | 100-277Vac  |
| Input Frequency 输入频率           | 47-63Hz   |
| Input Current (Typ.) 输入电流 (典型) | 500mAmax. @ 100-277Vac & 100% load  |
| Input Current 输入电流             | 60Amax. @ 230Vac, 25°C  |
| Power factor (Typ.) 功率因数 (典型)  | PF>0.9@115VAC/230VAC/277VAC, 100% load  |
| THD 总谐波失真                      | THD<20% @ 115VAC/230VAC/277VAC, 100% load   |
| Output characteristics 输出特性    |   |
| Current accuracy 电流精度          | 5%lo <sup>注3</sup>  |
| No load Voltage 空载电压           | 50Vmax  |
| Efficiency 效率                  | 85%@@ 100-277Vac & 100% load, see efficiency vs. load curve for the details   |
| Output Voltage 输出电压            | 25V-42V   |
| Ripple and Noise 纹波与噪声         | 500mVp-p  |
| Line Regulation 线性调整率          | 3%lo  |
| Load Regulation 负载调整率          | 3%lo  |
| Turn On Delay Time 开机延时        | Under normal conditions, the maximum delay time is 1 second   |
| Protection functions 保护功能      |   |
| Open circuit 开路保护              | When the LED disconnection the product is protected such as hiccup or when it is at the highest point of output voltage, the power supply shall be self-recovery when the fault condition is removed.当 LED 开路时, 产品进入保护状态, 如打嗝或钳在某输出最高电压状态, 产品不会损伤, 当故障排除或重新开机时, 电源恢复工作正常。 |
| Short Circuit 短路保护             | The input power shall decrease when the output rail short, the power supply shall be self-recovery when the fault condition is removed.输入功率会相应减小当输出短路时, 短路情况解除后, 电源自动恢复正常。  |
| Environmental conditions 环境条件  |   |
| Operating Temperature 工作温度     | -20°C to +50°C  |
| Operating Relative Humidity 湿度 | 10% to 95% RH, non-condensing   |
| Storage Temperature 储存温度       | -30°C to +70°C  |
| Storage Relative Humidity 储存湿度 | 5% to 100%RH, non-condensing (Sea level to 2,000 m)   |

|  |  |
|--|--|
| Vibration 振动   | 10 to 500HZ Sweep at constant acceleration of 1.0G (depth: 3.5mm )for 1 Hour for each of the perpendicular axes X, Y, Z. |
| Degrees of Protection 防水等级   | IP20   |
| <b>Safety compliance 安全标准</b>  |  |
| Safety Standard 安规标准   | GB19510.1,GB19510.14;EN61347-1,EN61347-2-13;UL8750, CSA C22.2No.250.13-12.   |
| Dielectric Strength 介电强度   | I/P-OP:3750VAC/5mA/60S   |
| Insulation Resistance 绝缘电阻   | I/P-O/P:>10M Ohms / 500VDC / 25°C / 70% RH.  |
| Leakage Current 泄露电流   | The leakage current shall be less than 0.25mA for Class 2 at maximum input voltage                                       |
| EMI  | GB17743, GB17625.1; EN55015, EN61000-3-2, EN61000-3-3.   |
| EMS  | EN 61000-4-2, 3,4,5,6,8,11, EN 61547.  |
| <b>Reliability 可靠性</b>   |  |
| Life Time 寿命   | ≥50,000 H@230Vac, 100% load. See lifetime vs. Tc curve for the details   |
| MTBF 平均无故障时间   | ≥ 200,000H@ 25°C, 230Vac, 80% load. (MIL-HDBK-217F)  |
| Warranty 质保  | 5 years  |
| <b>Others 其它</b>   |  |
| Dimensions 尺寸  | 208*85*34.4mm (L*W*H)  |
| Weight 重量  | 457±10g  |
| <b>Remark 备注</b>   |  |
| 1. The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25°C and humidity 50%, AC input 230V and 90% output load.此参数所得包括功率因数, 总谐波失真, 效率等所有测试均在 25°C 50%湿度 输入电压 230V 以及 90%输出负载的环境下测试。<br>2.lo is rate output current. |  |

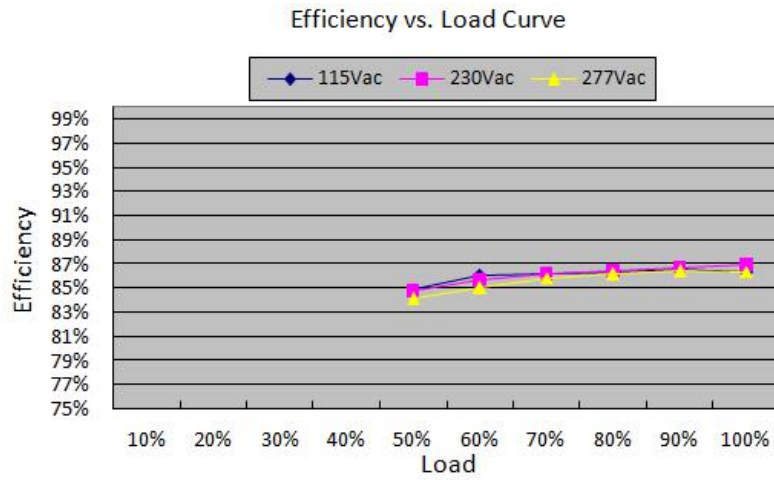
### ■ Dimmable feature 调光描述

| Function  |   | 0-10V  |        |        |        | PWM    |        |        | RX     |      |      |      |
|-----------|---|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|
| Yes Or No |   | √      |        |        |        | √      |        |        | √      |      |      |      |
| %         | 0 | 10     | 20     | 30     | 40     | 50     | 60     | 70     | 80     | 90   | 100  | open |
| 0-10V     | 0 | 9.4%   | 21.65% | 33.23% | 45.29% | 57.64% | 69.8%  | 82.05% | 94.01% | 100% | 100% | 100% |
| PWM       | 0 | 10.92% | 25.54% | 39.31% | 52.04% | 64%    | 75.02% | 85.37% | 94.58% | 100% | 100% | 100% |
| RX        | 0 | 9.4%   | 21.65% | 33.23% | 45.29% | 57.64% | 69.8%  | 82.05% | 94.01% | 100% | 100% | 100% |

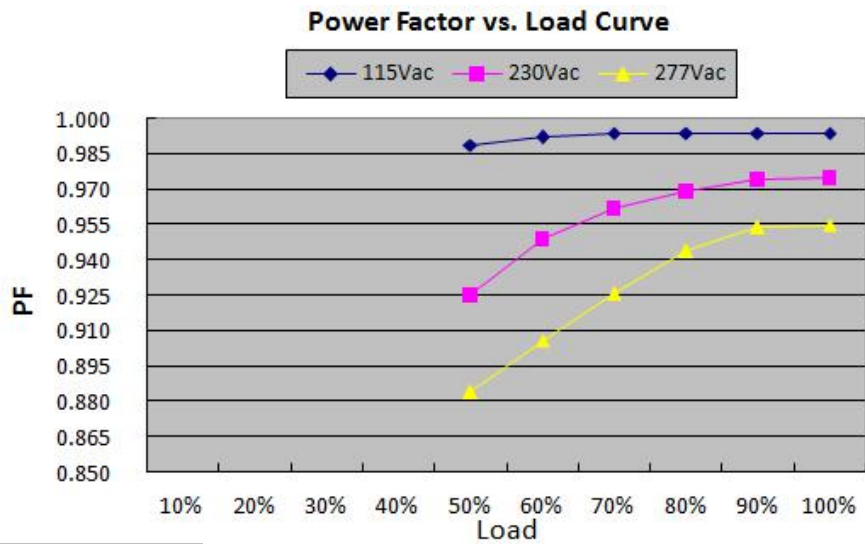
Note:

- % Refers to the percentage of the dimming signal % 为调光信号百分比
- 0-10V PWM RX refers to three different dimming way, the percentage of output current under the corresponding dimming signal percentage 0-10V PWM RX 为 3 种调光方式, 在对应的调光信号百分比下电源输出的电流百分比

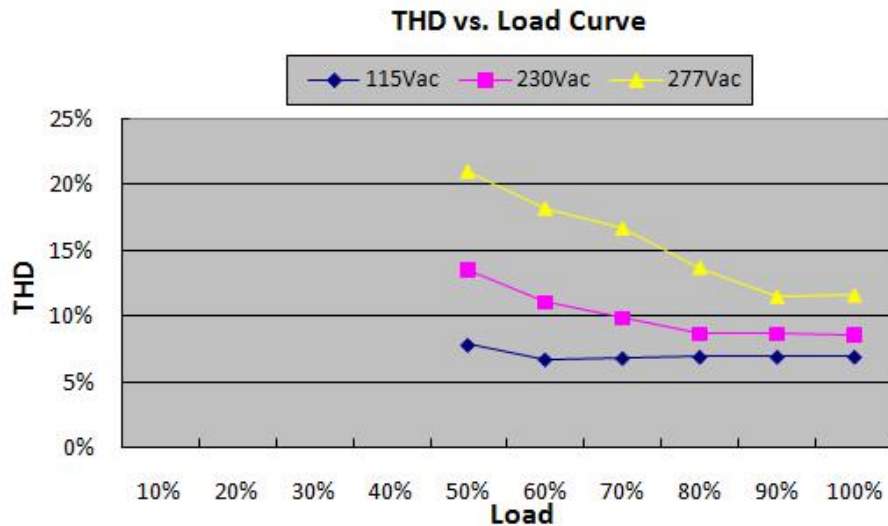
■ Efficiency vs. Load 效率负载



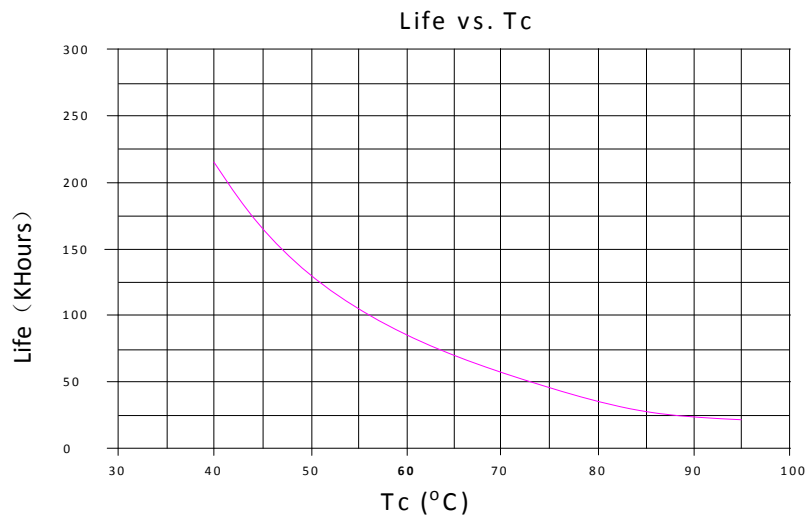
■ Power Factor 功率因素



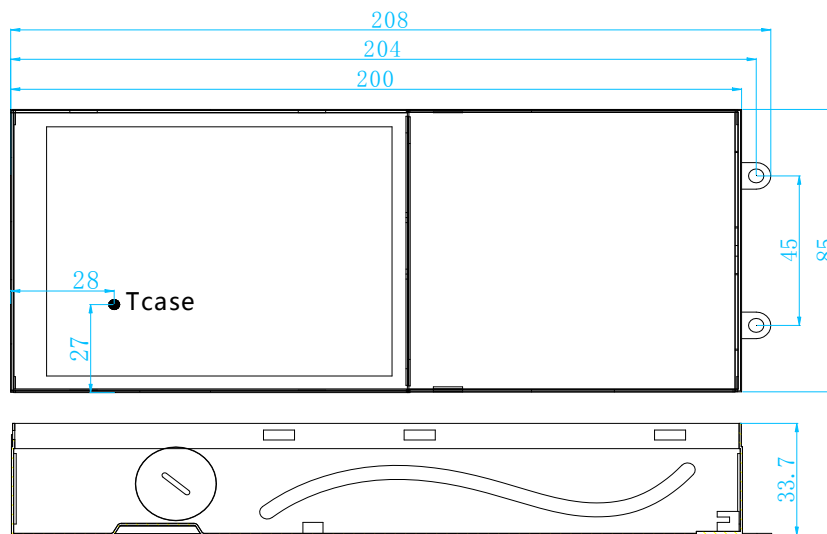
■ THD vs. Load THD 和负载



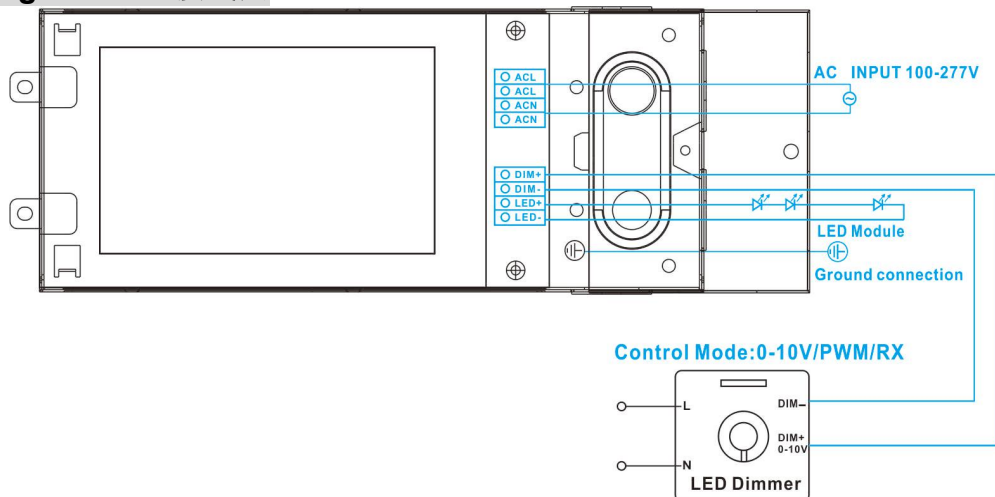
## Life vs. Tc 寿命和温度




## Dimensional Drawing (unit: mm) 尺寸图



## Cabling scheme 接线图



**■ LABEL 标签**



## DIMMABLE LED DRIVER

Model: HN42W-02-E1050

www.fahold.com




Input Voltage: 100-277V~50/60Hz Max.0.5A λ:0.9  
Output :25-42V==1050mA

| Output Current | 1 | 2 | 3 |
|----------------|---|---|---|
| 660mA          | ● | ● | ● |
| 700mA          | ○ | ● | ● |
| 760mA          | ● | ○ | ● |
| 800mA          | ○ | ○ | ● |
| 850mA          | ● | ● | ○ |
| 900mA          | ○ | ● | ○ |
| 1000mA         | ● | ○ | ○ |
| 1050mA         | ○ | ○ | ○ |

TA:50°C ● TC:90°C

0-10V / PWM / RX Dimming  
Dry or damp location use only  
Short circuit protection

MADE IN CHINA

**Class 2**

YYMM

Input

ACL

ACL

ACN

ACN

Wire preparation  
push in  
IN:24-14AWG  
OUT:22-16AWG

7-8mm

Output

DIM+

DIM-

LED+

LED-

备注:上图模版为 HN42W-02E 激光带 LOGO 标准模版标签.

## 包装, 运输, 贮存 Package, Transportation & Storage

### 1. 包装 Package

a. 包装箱的外形尺寸为 (单位: mm): 长 X 宽 X 高=485\*342\*201mm;

package box outside dimension: L×W×H =485\*342\*201mm (unit: mm);

b. 每箱产品的包装数量为 28 台;

product number in each box: 28PCS;

c. 整箱毛重 KG

whole box gross weight: kg;

### 2. 运输 Transportation

适用于车, 船, 飞机运输, 运输中应遮蓬, 防晒, 文明装卸。

Packaging is designed suitable for transportation by truck, ship, and plane. The products should be shielded from sunshine, and loaded and unloaded carefully.

### 3. 贮存 Storage

产品贮存应符合 GB3873-83 的规定。

贮存期限超过一年的产品要重新检验, 合格后方可使用。