



深圳市华浩德电子有限公司

Shenzhen Fahold Electronics CO.LTD.

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Product Name:	FD-42E		
Product Model:	FD-42E-054*/B/C/D/Z 27-54V 0.55-1.1A FCC ☒ UL ☒		

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文管中心
受控文件

Customer/ :		
Products code :	Sample NO. :	Customer ID : F8888
Customer Model No. :	Fahold Model No. : FD-42E	Version. 00

IGNATURE AND SEAL BY US /		
日期:	2019-8-15	
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

Customer Model No. :		
日期:		
ENG./工程	QA/品管	OTHER/其他

Comments

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Introduction

The document detail the electrical, mechanical and environmental specifications of a 36W constant current LED driver with 0-10V Dimming. This LED drive power supply is suitable only for LED load

LED 36W 0-10V LED

Model and Key parameters

Table 1, 1

Model	W	Output voltage (V)	Max output voltage (Vdc)	output current (A)	Efficiency (%) @120V	Efficiency (%) @230V
FD-42E-054*/B/C/D	36	27-54	63	0.55-1.1	86	86

Note

1: Max output voltage test

2 B,C,D);B
C D Z .

2: Optional letters B, C, D or empty, indicating that the output increases with different optional functions. The default position indicates that the current can be adjustable(basic model); letter B can be three-in-one dimming and fine-tuning current, letter C indicates that non dimmable and output current unadjustable, letter D enable dimming uncharged current.letter Z Intelligent dimming.

3: C/D YYY,YYY FD-42E-54C-1100

The model C / D on the back of the label to write YYY and YYY for the output current, such as FD-42E-54C-1100

Feature

- ◆ IP65
- ◆ Max output power 36W. 36W
- ◆ Constant current design.
- ◆ 3 in 1 dimming mode:0-10V,PWM,RX.
0-10V PWM,RX
- ◆ Smoothly dimming(0-100%),can dim to off.
从0%-100%平滑调光, 且调光输出可关断
- ◆ UL FCC Certified.
- ◆ Surge protection:
Differential mode:6KV.Common mode:10KV.
:6KV :10KV
- ◆ PROTECTION Short Circuit, Open Circuit

◆ Auxiliary output 12V; 12V

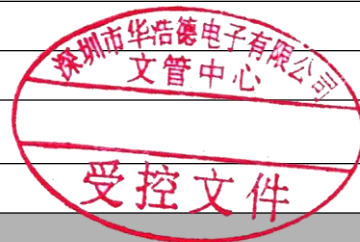
Application

- ◆ Street lights、High bay lights.



■ Technical data

Input characteristics		
Input Voltage	100-277Vac	
Input Frequency	50/60Hz	
Input Current (Typ.)	0.6A @100 Vac , 100% load	
No load Voltage	2Wmax	
Inrush Current	60Amax. @ 230Vac, 25	
Power factor Typ.	PF>0.95@ 100-277 Vac, 100% load,	2
THD	THD<20% @ 100-277 Vac, 100% load	3
Output characteristics		
Current accuracy	± 5% I _o	
Efficiency	≥86% @ 120 Vac, ≥85% @ 277Vac,	1
Output Voltage	Table 1 ,	1
Ripple and Noise	500mVp-p	
Line Regulation	5%I _o	
Load Regulation	5%I _o	
Turn On Delay Time	Under normal conditions, the maximum delay time is 2 second 2	
Protection functions		
Open circuit	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. LED	
Short Circuit	The input power shall decrease when the output rail short, the power supply shall be self-recovery when the fault condition is removed.	
Environmental conditions		
Operating Temperature	-40 to +60	
Operating Relative Humidity	10% to 90% RH, non-condensing	
Storage Temperature	-40 to +75	
Storage Relative Humidity	10% to 90%RH, non-condensing Sea level to 2,000 m	
Vibration	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	IP65	
Safety compliance		



Safety Standard	GB19510.1,GB19510.14;EN61277-1,EN61277-2-13;UL8750, CSA C22.2No.250.13-12.				
Dielectric Strength	-	P-S:3750VAC/5mA/60S	-	P-E:1500VAC/5mA/60S	
	-	P-E:500VAC/5mA/60S			
Insulation Resistance	I/P-O/P:>50M Ohms / 500VDC / 25 / 70% RH.				
Leakage Current	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, FCC Class B				
EMS	EN 61000-4-2, 3,4,5,6,8,11, EN 61347.				
ESD	/	Severity Level	Level3/3	8KV	
		Severity Level	Level2/2		
RF	80-1000MHZ; Severity Level		Level2/2	3V/M	
	Performance Criterion		A		
EFT	Severity Level	Level2/2	line to line	1.0kv	B
Surge Immunity	Severity Level	Level2/2	6KV		
	Severity Level	Level3/3	10KV		
	Performance Criterion		B		
Reliability					
Life Time	≥5Years H@277Vac, 100% load. See lifetime vs. Tc curve for the details				
MTBF	≥ 200,000H@ 25 ,277Vac, 80% load. (MIL-HDBK-217F)				
Warranty	5 years				
Others					
Dimensions	140*48*32mm L*W*H				
Weight	*				
Remark					
1. The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25 and humidity 50%, AC input 230V and 90% output load.					
50% 230V 90%					
2.Io is rate output current.					

■ Dimming

		Min	Typ	Max	
0-10V 1-10V		-20V	0-10V	14V	
		10%		100%	
		0.3V	0.5V	0.7V	
		0.5V	0.7V	0.9V	
PWM		0V	10Vp-p	14V	
		1KHz		2KHz	
		5%		100%	
		0.4kΩ		50kΩ	
		10%		100%	

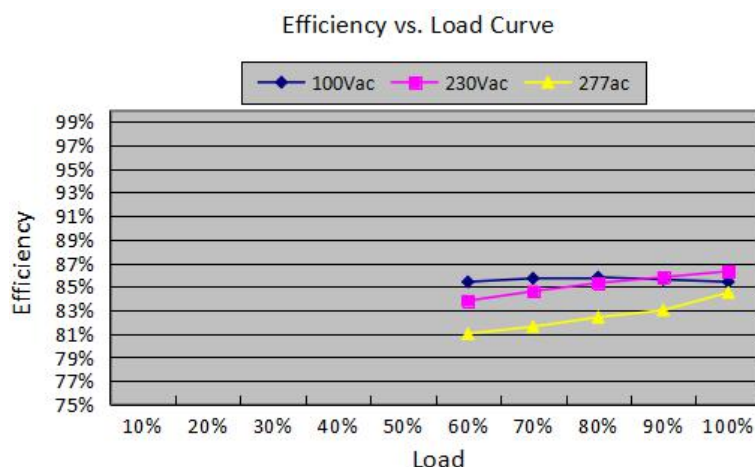
■ Dimming

Function			0-10V			PWM			RX			
Yes Or No			Y			Y			Y			
0-10V	0	1	2	3	4	5	6	7	8	9	10	open
I _r	0	11%	22%	31%	41%	51%	61%	71%	81%	91%	100%	100%
PWM	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%
I _r	0	9%	19%	29%	39%	49%	59%	69%	80%	90%	100%	100%
RX	0	0.4K Ω	0.8K Ω	1.4K Ω	2.2K Ω	3.2K Ω	4.3K Ω	6.3K Ω	9.6K Ω	16.2K Ω	45K Ω	50KΩ
I _r	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%

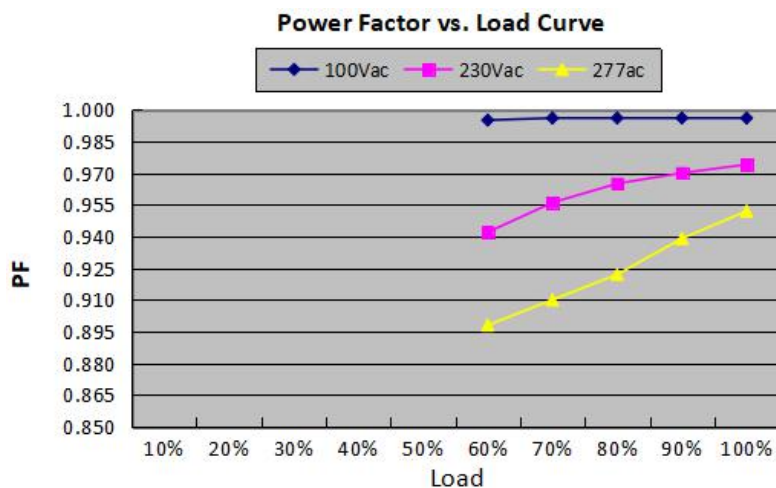
Note:

1. I_r is the output current percentages.
2. I_r above is typical values.

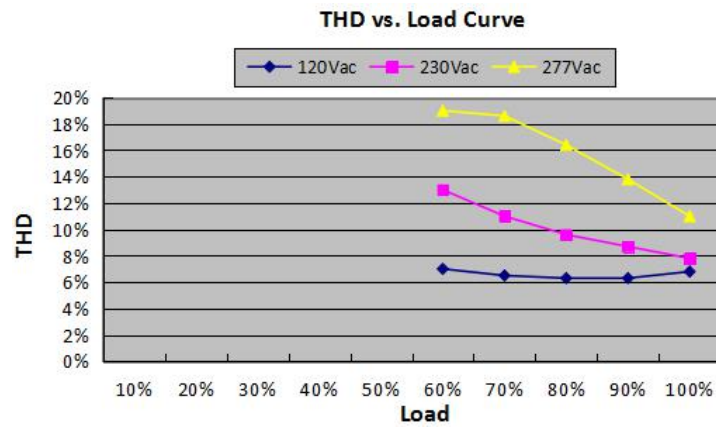
Efficiency vs. Load



Power Factor

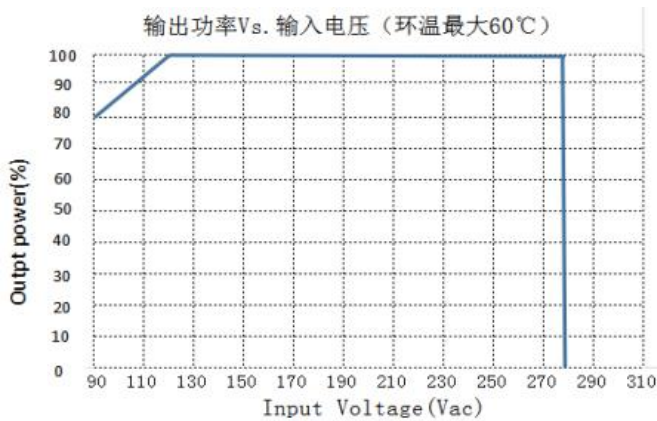


THD vs. Load THD



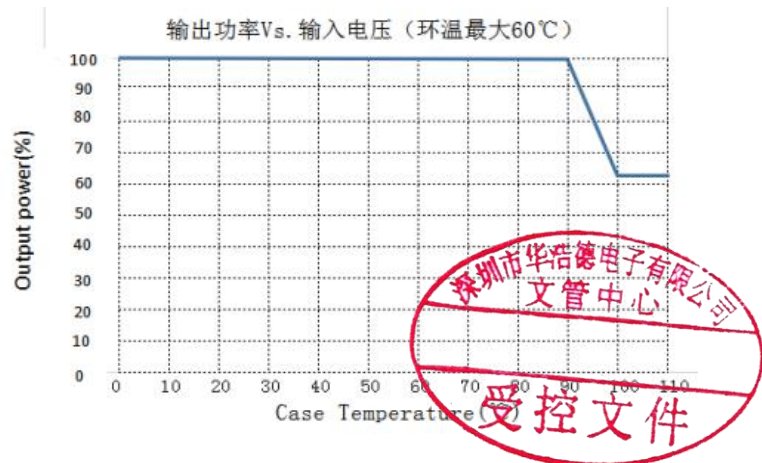
■ 输出功率 Vs. 输入电压(环温最大 60℃)

Output power VS Input voltage

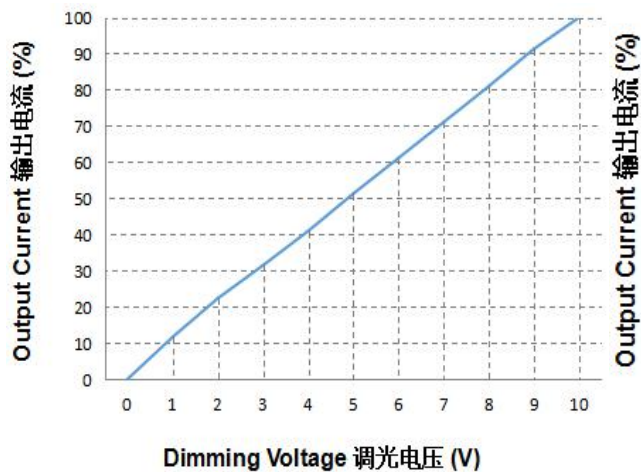


输出功率 Vs. 壳温

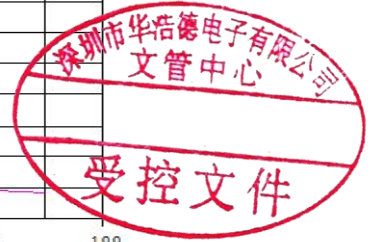
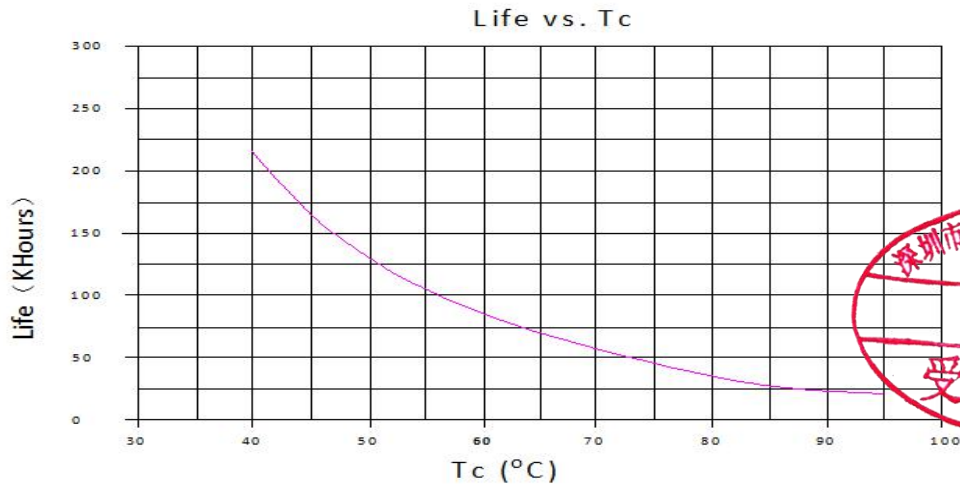
Output power VS Shell temperature



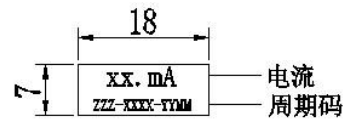
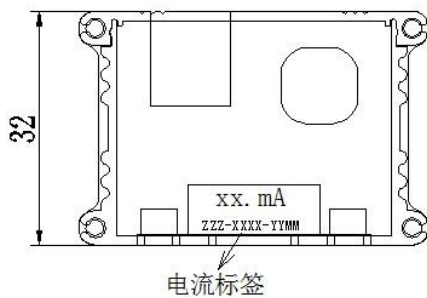
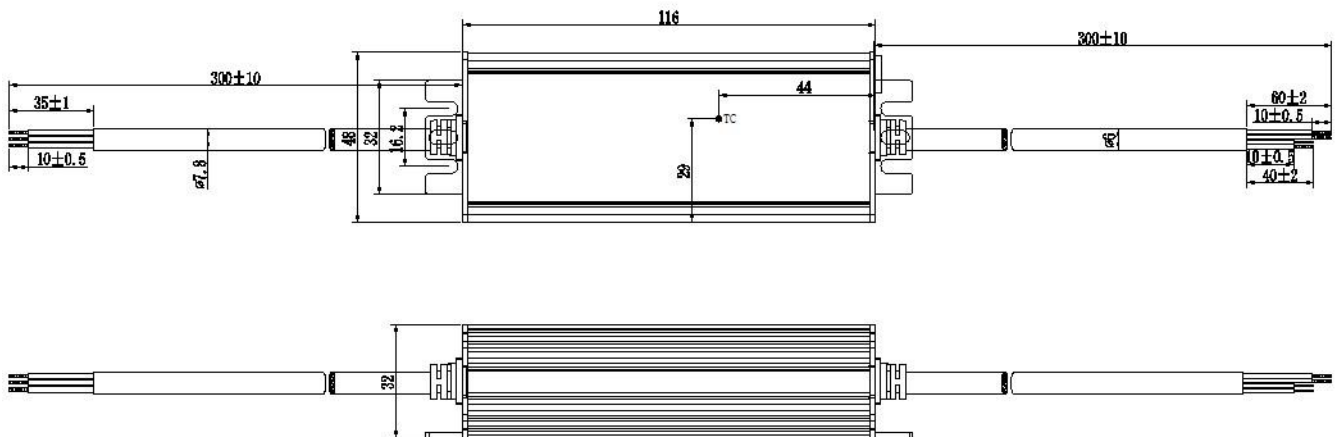
■ Dimming curve



Life vs. Tc P5, 5



Dimensional Drawing (unit: mm)



XX. mA为电流，电流标签填实际订单电流
 ZZZ-XXXX-YYMM为周期码，在电流标签上比电流略小
 周期码编码为: ZZZ(业务员代码) + XXXX(订单号末4位) + YY(当年) + MM(当月)，假设: 业务员代码为B01，
 订单号为: S20180803213，当年为2019年当月为3月，周期码为: B01-3213-1903
 电流标签优先贴于输出端

LABEL

 www.fahold.com		Constant Current LED Driver Model: FD-42E-054B		tc:90°C •tc		OUTPUT LED+ (RED) ○ LED- (BLACK) ○ DIM+ (PURPLE) ○ DIM- (GREY) ○ Io ADJ. ●	
INPUT ○ ACL (BLACK) ○ ACN (WHITE) ○  (GREEN)		INPUT:100-277V~ 0.5A 50/60Hz OUTPUT:27-54V $\approx$ 0.55-1.1A Max.36W Suitable for use in Dry,Damp and Wet Locations		 FC IP65 Class 2		  	
						MADE IN CHINA	



