Specification

Part No. : 10101797

Model No. : WP-CHS-058U

Description : 120-277V , 30-50V , 900-1500mA , 60W , 0-10V , 2/2KV , 12V/100mA

Version : V1.1

Date : 2020-08-21

电 话： 0755-29107971

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地 址： 深圳市宝安区福海街道塘尾社区塘尾大道边正风工业区 A3 幢

Features :

- High efficiency
- Constant current output
- High PF:0.99 Max.
- Low THD
- Surge level:L-N 1KV,L&N-PE 2KV
- Protection: OVP , SCP , OCP.
- Flicker free
- 0-10V dimming、12V Auxiliary output , Isolated Class 2 output
- Metal case
- Apply to dry&damp location
- Warranty 5 years

Class 2

Class P RoHS

General Description :

WP-CHS-058U series products are bipolar isolated constant current LED drivers, have high power factor, low THD, flicker free, high efficiency, high reliability, high constant current accuracy, etc. features. Complete functions, diverse specifications, can meet more customers demands with different parameters, comprehensive protection, including lightning protection, over-voltage protection, over-load production, short-circuit protection, open-circuit protection and open circuit protection, ensure the barrier-free operation of the LED driver.

Electrical Parameters :

Model	Output Voltage	Output Current	Max. Output Power	Auxiliary Output	Efficiency(Typical)	
					120Vac	277Vac
WP-CHS-058U	30-50V	900-1500mA	60W	12V/0.1A	87%	88%

Note:

When adjusting the output current, the output power of the LED driver is strictly prohibited to exceed 60W (within the rated output voltage range, the maximum output power must meet Po=Vo*Io=60W), otherwise it will cause overload and damage.

Input Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Rated input voltage	Uin	Vac	120		277	
Rated input current		Vac	108		305	108V down to 80%
Input frequency	F	Hz	47	50/60	63	
Max. Input current	Iin	A			0.7	120Vac/60Hz , @full load
Max. Input power	Pin	W			73	120Vac/60Hz , @full load
Input surge current		A			60	277Vac/60Hz cold start
No-load power consumption		W			2	277Vac/60Hz , no load
Standy power consumption		W			2	277Vac/60Hz , dim to off
Power factor	PF		0.9			Vin=277Vac/60Hz (70%-100% /load)
THDI	THDi			15%	20%	Vin=120-277Vac/60Hz ,

						(70%-100% /load)

Output Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Output voltage	Uo	V	30		50	Po≤60W (Vo*Io) ,@full load
Output current	Io	mA	900		1350	Use “my set “setting
Line regulation		%	-3%		+3%	Full load
Load regulation		%	-3%		+3%	
Current accuracy		%	-3%		+3%	
No load output viltage		V			60	12V auxiliary no load
Output current ripple	PK-AV	%			5%	Full load (PK-PK) / (Irms*2)
Output current overshoot		%			+10%	Full load , cold start output peak
Temperature coefficient		/℃	-0.03%		0.03%	Tc : 0℃~90℃
Start-up time		S			1	120Vac
					0.75	277Vac

12V Output Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Output voltage		V	11	12	13	Loading 0-100mA
Ripple voltage	PK-PK	mv			100	Full load (PK-PK)
SCP						No damage , hiccup mode
OCP						No damage , hiccup mode

Dimming Characteristics :

Parameter	Symbol	Unit	MIn.	Typical	Max.	Remark
Max. Io output voltage		V	8	8.5	9	
Max. Applied voltage		V		10	12	
Dimming output range		%	0		100%	Depends on dimmer
Recommended dimming voltage		V	0		10	
Shut down voltage		V	0.3	0.4	0.5	
Turn on voltage		V	0.6	0.7	0.8	
Dimming current		uA	150			

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Dimming depth		%	4	7	10	
Output impdance		KΩ		70		

Protection Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Output OVP	OVP	V	52	53	63	
Output short circuit power consumption		W			8	SCP no damage , hiccup mode
No load input consumption		W			4	OCP no damage , hiccup mode

Environment Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Working temperature	Ta	℃	-20		50	
Max. Case temperature allowed	Tc	℃			90	
Working humidity		RH	10%		90%	
Storge temperature		℃	-40		85	
Storage humidity		RH	5%		95%	
Altitude		m	-50		3000	

Other Characteristics :

Parameter	Symbol	Unit	Min.	Typical	Max.	Remark
Life time	Lf	Khours		60		277Vac/60Hz full load 80% , Tc 80℃ (refer lifespan curve)
MTBF	MTBF	Khours		200		277Vac/60Hz full load 80% , Ta 25℃ (MIL-HDBK-217F)
Weight	M	g		480		
Dimension (length)	L	mm	241.3			
Dimension (width)	W	mm	33.3			
Dimension (height)	H	mm	28.1			

Note :

Unless otherwise specified, all the above parameters shall be measured under the condition of full load and 25℃ ;

Safety Regulation :

Certification	Safety Standard	Status	Remark
UL	UL8750	√	
CUL	CAN/CSA-C22.2 NO. 250.13	√	

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ENEC	EN 61347-1:2015, EN61347-2-13:2014/A1:2017 EN 61347-2-13:2014 EN 62384:2006+A1:2009		
RCM	AS/NZS 61347.2.13：2013 AS/NZS61347.1：2016		
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013		

Electromagnetic Compatibility ：

EMI/EMS	Standard	Judgements Basis
Conduction CE	FCC part 15	Class B
Radiation RE	FCC part 15	Class B
Harmonic wave	IEC/EN 61000-3-2	Class C
Surge	IEC/EN 61000-4-5	B 级（L-N :1KV，L&N-PE:2KV）
Ring wave	IEC/EN 61000-4-12	B 级（L-N :2.5KV，L&N-PE:2.5KV）

Safety Test Projects：

Safety Test		Technical Requirement	Remark
Voltage Withstand	Input-Output	2100Vac/5mA/60S	No breakdown, no arc
	Input-Ground	2000Vac/5mA/60S	No breakdown, no arc
	Output-Ground	2000Vac/5mA/60S	No breakdown, no arc
	Dimming-Ground	500Vac/5mA/60S	No breakdown, no arc
	Output-Dimming	1600Vac/5mA/60S	No breakdown, no arc
Isolation resistance		≥100Mohm	Input to Ouput，test voltage 500Vdc
Leak current		≤0.75mA	120-277Vac
Ground resistance		≤0.1Ω	25A/1min

Note:

1. LED driver is a component of whole lamp in conjunction with the use of terminal equipment, EMC performance due to the impact of LED lighting and wiring, terminal equipment manufacturers need to re-confirm the entire device EMC.
2. During the voltage test, please short circuit the L-N, the positive and negative of output line, and the positive and negative
of dimming line.

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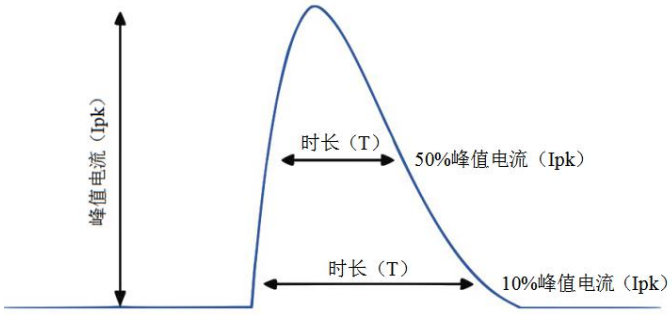
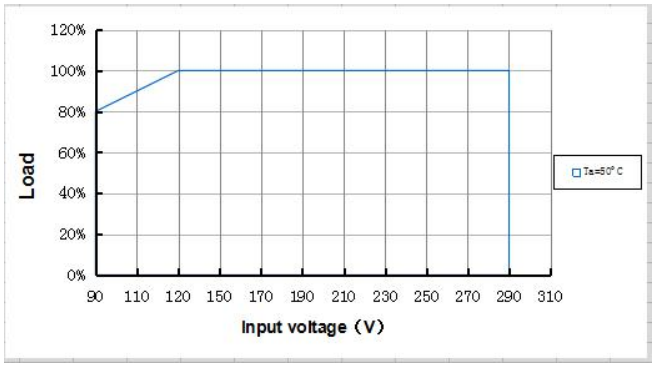
Characteristics Curve :

输入浪涌电流

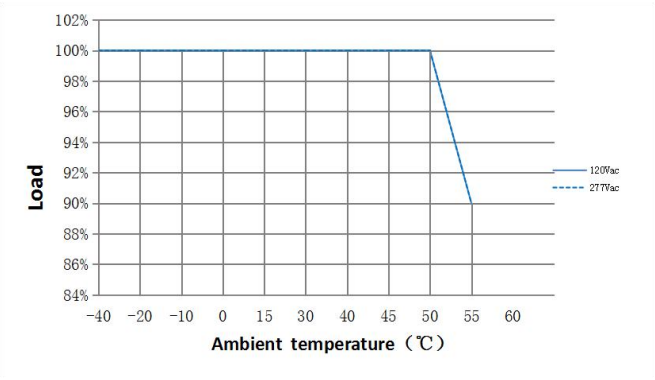


Input Voltage	Ipk Peak Current	T (@10% Ipk)	T (@50% Ipk)
120Vac	30A		200us
277Vac	51.7A	500us	

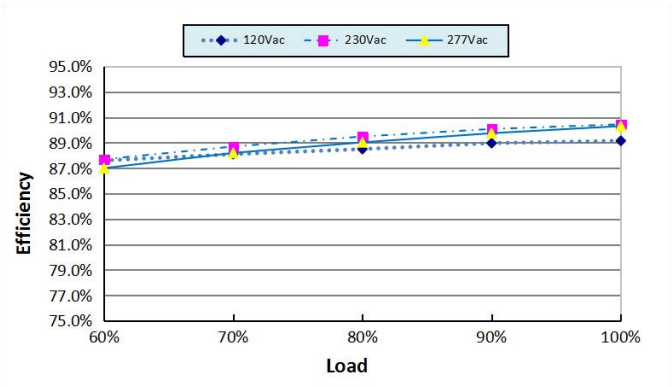
Load-Input voltage



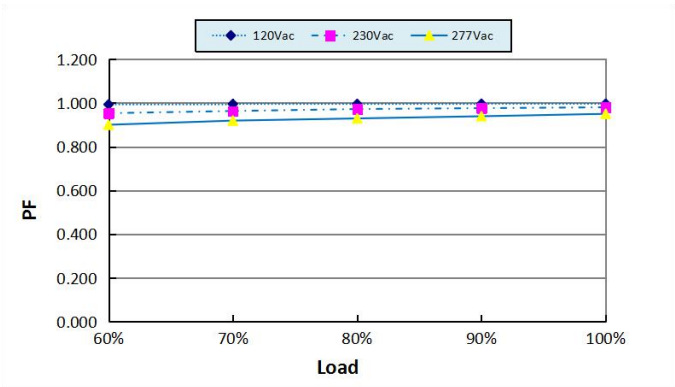
Load-Ta



Efficiency-Load



PF-Load



THD-Load

Lifespan-Tc

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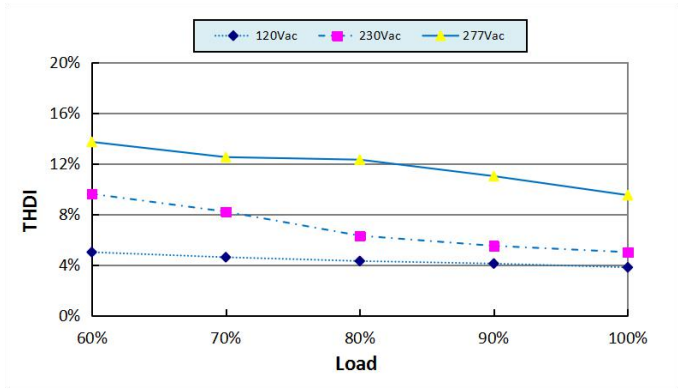
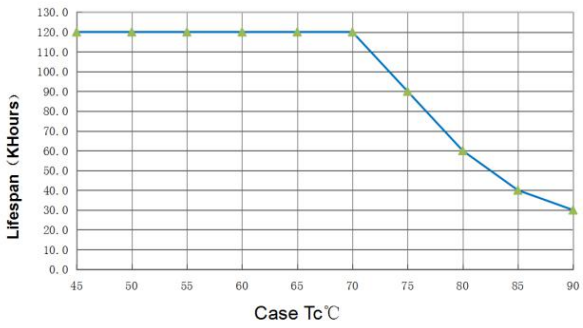
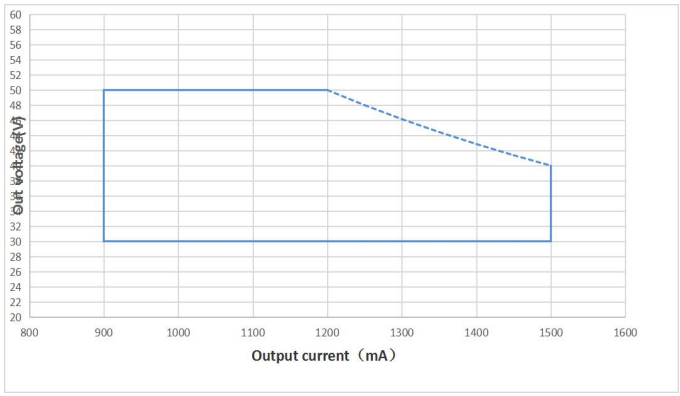
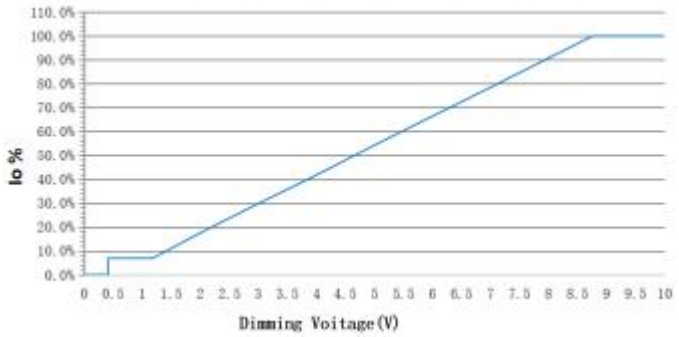




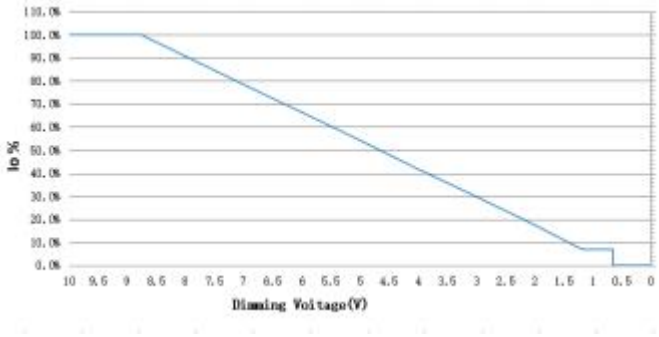
Output Voltage-Output Current

0-10V dimming





10-0V dimming



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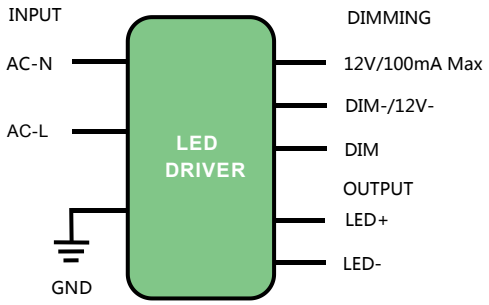
接线方式：



AC input wire:
UL1015, 18AWG, 600V, 105 C, black L, white N, wire exposed 155±5mm, tin plating length 10±1mm.

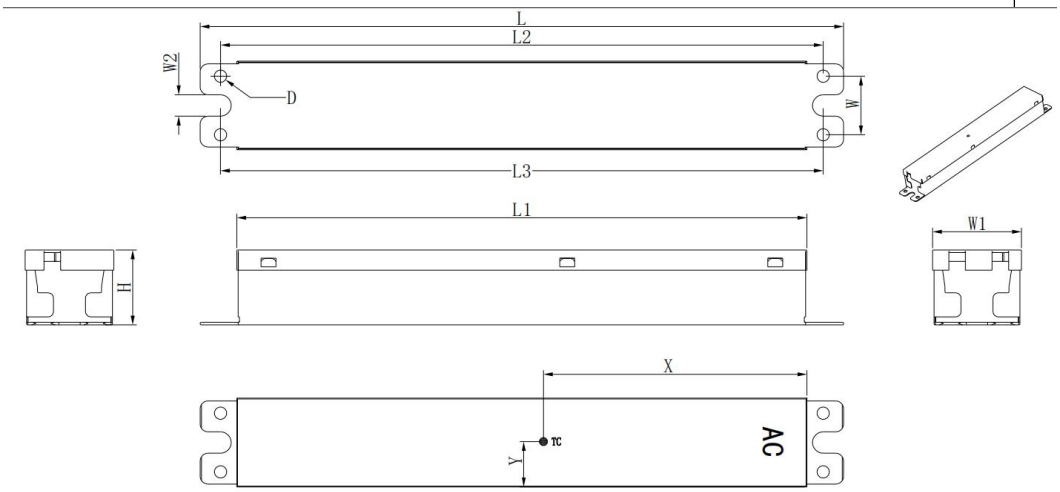
DC output wire:
UL1569, 18AWG, 300V, 105 C, red LED+, black LED-, wire exposed 155±5mm, tin plating length 10±1mm.

Dimming wire:
UL1569, 22AWG, 300V, 105 C, purple DIM+, grey DIM-, wire exposed 155±5mm, tin plating length 10±1mm.

Auxiliary source:
UL1569, 22AWG, 300V, 105 C, yellow 12V+, grey 12V-, wire exposed 155±5mm, tin plating length 10±1mm.

Structure：

Name	Code	mm (in.)
Case length	L1	213.8 (8.4)
Case width	W1	33.3 (1.3)
Case height	H	28.1 (1.1)
Total length	L	241.3 (9.5)
Mounting hole length	L3	226 (8.9)
Mounting hold width	W2	8 (0.3)
Location hold length	L2	226 (8.9)
Mounting hold size	D	4.6 (1.8)
Location hold width	W	22 (0.9)
Tc location	X	98.8 (3.9)
Tc location	Y	17 (0.7)



Packing：

- Single net weight：480g
- Qty per carton：48个
- Carton size：LxWxH=355x340x205mm
- Net weight/Gross weight：23.04 kgs/23.54 kgs
- The product name, model, manufacturer's logo, inspection certificate of the quality department, manufacturing date, etc. are on the carton

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Note:

- LED driver method has two ways .one called directly method another called with led method.
- If the packaging of the product is damaged, please make sure that the appearance of the product is complete and that there are no cracks in the external structure of the product.
- When dimming is not used, please seal the dimming joint with insulating sleeve, so as to avoid damage of dimming circuit caused by interference signal and affect the normal operation of power supply.

Transportation:

- It is suitable for transportation by car, boat and airplane, During transportation, it should be sheltered, sun-proof, and civilized loading and unloading.

Storage:

- Product storage should comply with GB 3873-83.
- If storage period >1 year, products should be re-examined

RoHS:

- Products comply to the European Standard 2011//65/EC

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Change History

Version	Change Description	Date	Remark
V1.0	First Draft	2020/06/08	
V1.1	Update No Load Power	2020/08/21	

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