LED驱动规格书

600FGH400C-DC

V1.1

2024/3/28

Powerland Signatures					Customer Approval Signature
Prepared	Checked		Approved	Marketing	
	ME	研发经理			

Please return us one copy of the document with your approval signature.

请客户确认签字后回传我司此规格承认书。

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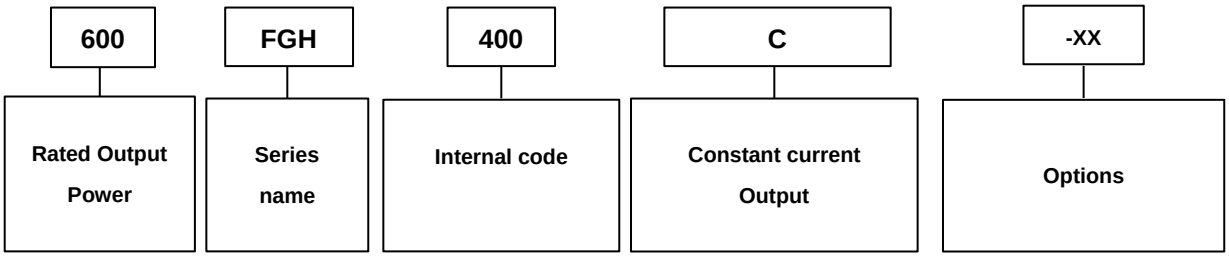
Features

- Dimming port programming without driver power on
- Dual constant current output
- High efficiency (Max 97%), active power factor correction
- Ultra low THD at light load
- Isolated 0~10V/ PWM dimming
- 12V/200mA AUX Output
- UL/FCC/CB/CE
- 7 years warranty

Description

600W LED Drivers offers dual constant current output and independent dimming. digital programmable drivers with wide-range adjustable output current, together with 12V/200mA auxiliary output (optional) for smart lighting.
The output current of this series are programmable, and designed for 0-10V/PWM.

Model Name Definition



Specifications

Part Number	Max. Output Power	Programmable Current Region@CC	Output Voltage Range	Efficiency @347VAC
600FGH400C-DC	600W	0.8-2.5A/0.5-1A	150-400V/50-150V	96%

Note: Efficiency value is typical value.

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input AC Voltage	315 Vac	347/400Vac	440Vac	
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	0.75 mA	At 400Vac / 60Hz input , grounding effectively
Input AC Current	-	-	2.1A	Measured at full load and 347 Vac input.
Inrush Current	-	15A	16.5A	At 400Vac input, 25°C cold start.
Inrush Current (I^2*t)		0.3		A^2Sec（50%Imax to 50%Imax ）
PF	0.95	-	-	At 347-400Vac, full load
THD	-	-	20%	At 347-400Vac, 20%-100% load(Typ@347Vac,20% load)
	-	8.87%	15%	At 347-400Vac ,full load condition(Typ@347Vac, full load)

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-2% Io set	-	2% Io set	At 25°C and full load condition
Total Output Current Ripple (pk-pk)	-	-	10% Io max	At 25°C and full load condition, 20 MHz BW
Startup Overshoot Current	-	-	20% Io max	At 25°C and full load condition
Output Voltage-Vo1	150V		400V	
Output Voltage-Vo2	50V		150V	
Output Current-Vo1	0.8A		2.5A	
Output Current-Vo2	0.5A		1A	
No Load Output Voltage-Vo1	-	-	500V	
No Load Output Voltage-Vo2	-	-	180V	
Line Regulation	-	-	±1%	Measured at full load
Load Regulation			±3%	
Turn-on Delay Time	-	0.8 s	2s	Measured at 347Vac input.
Output SCP				AC power on restart
Temperature Coefficient of Ioset	0.1%/°C	-	0.1%/°C	Case temperature = 0°C ~Tc max
12V Auxiliary Output Voltage	11.4V	12 V	12.6V	200mA ripple can not exceed 100mV
12V Auxiliary Output Source Current	0 mA	-	200 mA	Return terminal is "Dim–"
OTP Tc	85°C	90°C	100°C	Output current will drop to 50%
12V Auxiliary Output SCP				Hiccup mode, Auto recover
Overvoltage Protection	-	-	20V	
Overcurrent Protection	-	-	0.5A	

Note: It indicates normal temperature if there is not mark temperature.

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Standby power	-	-	NA	Measured at 347-400Vac/60Hz; Dimming off
MTBF	-	234,000 Hours	-	Measured at 347Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK- 217F)
Lifetime	-	61,320 Hours	-	Measured at 400Vac input, 100%Load and 72°C case temperature.
Dielectric Strength(Hi-pot)			10mA	Primary to Earth: 1800Vac 60 seconds
Grounded Resistance			0.1Ω	25A, 1 minute
Operating Case Temperature Tc	-20°C	-	90°C	
Operating Ambient Temperature Ta	-20°C	-	50°C	
Storage Temperature	-20°C	-	+85°C	

Dimensions Inches (L × W × H) Millimeters (L × W × H)	17.8 × 1.73 × 1.67in 452 × 43.9 × 42.4 mm			
Net Weight	-	950g	-	

Dimming Specifications

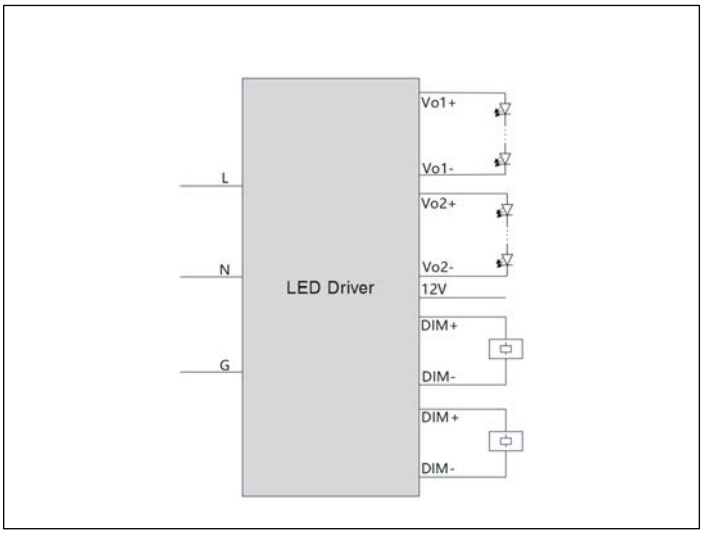
Parameter	Min.	Typ.	Max.	Notes
Absolute Maximum Voltage on the Vdim (+) Pin	0V	-	15 V	
Source Current on Vdim (+)Pin	180 uA	200 uA	220 uA	
Dimming Output Range	10% Io set	-	Io set	80% Io max ≤ Io set ≤ 100% Io max
	8% Io max	-	Io set	Io set ＜80% Io max
Recommended Dimming Input Range	0 V	-	10 V	Default 0-10V dimming mode.
Dimming On Voltage	0.5V	0.7V	0.9V	
Dimming Off Voltage	0.3V	0.5V	0.7V	
Hysteresis Voltage	-	0.2V	-	
PWM_in High Level	9.5 V	10V	10.5 V	
PWM_in Low Level	-0.3 V	-	0.6 V	
PWM_in Frequency Range	600 Hz	-	3 KHz	
PWM_in Duty Cycle	1%	-	100%	
PWM Dimming off	3%	5%	7%	
PWM Dimming on	5%	7%	9%	
PWM Hysteresis Voltage	-	2%	-	

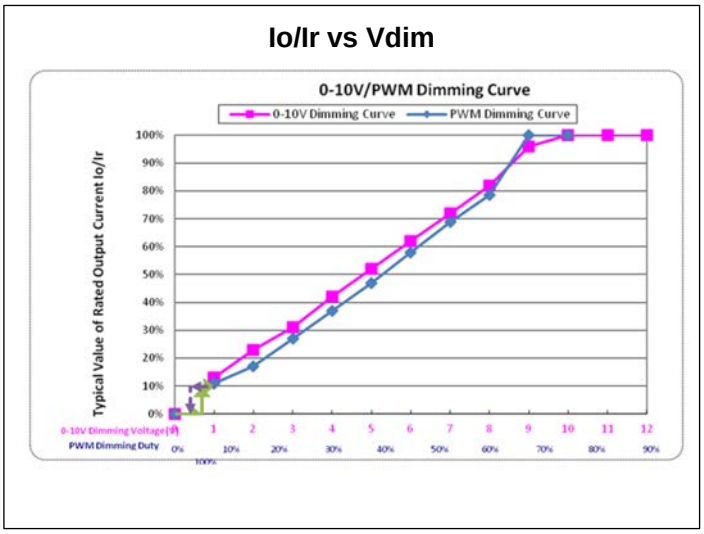
Safety &EMC Compliance

Safety Category	Standard
UL/cUL	UL8750, CAN/CSA-C22.2 No.250.13-12
CE	EN 61347-1, EN 61347-2-13, EN 55015，EN 61000-3-2
CB	IEC 61347-1, IEC 61347-2-13
EMC Standards	**Notes**
FCC Part 15/EN 55015	ANSI C63.4:2009 Class B
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired Operation.
EN 61000-4-2	Electrostatic Discharge (ESD): 8kV air discharge, 4kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT: level 3, criteria B

EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 4kV, line to earth 6kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

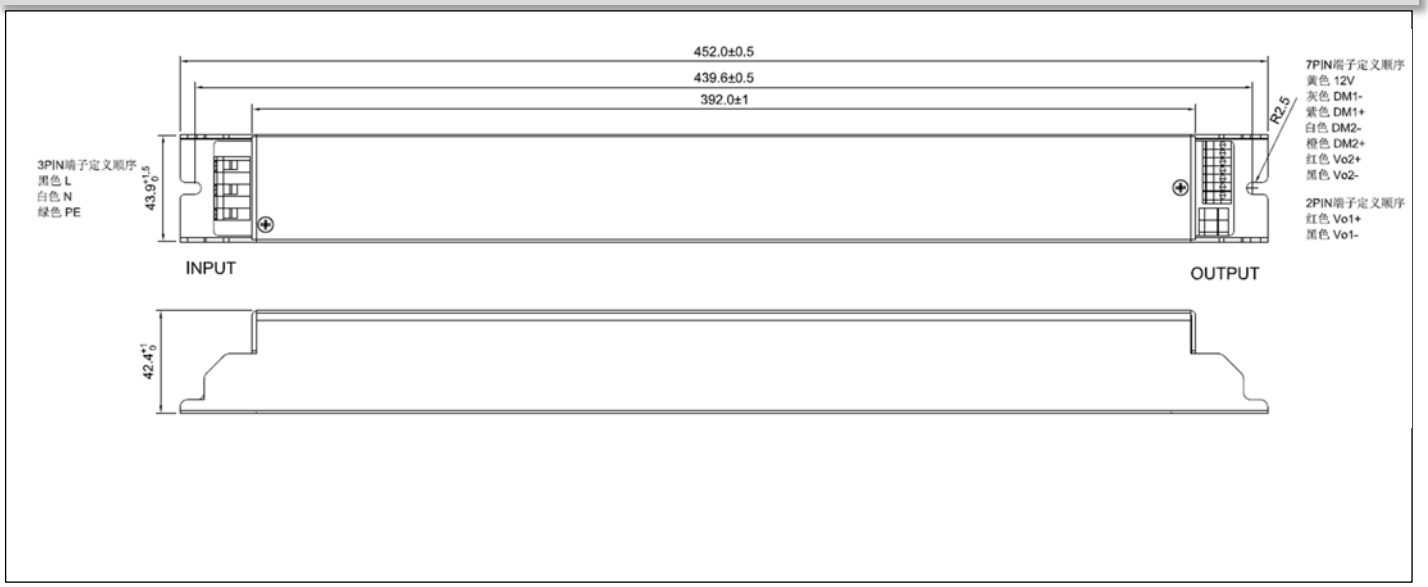
0-10V Analog Dimming &PWM Dimming





Programming wiring diagram

Mechanical Specification



Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2023/07/05	1.0			
2024/3/28	1.1	Output Voltage-Vo2	120V	150V
		No Load Output Voltage-Vo2	160V	180V
		THD	4.87% typ	8.87% typ