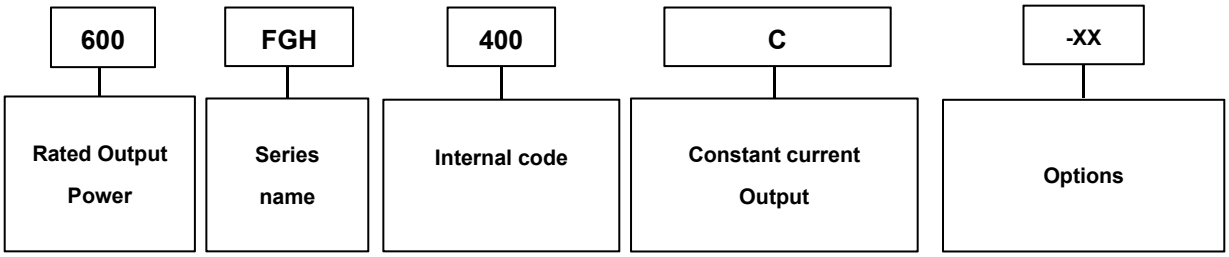
Features

- 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/50-120V	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	-	-	2.0A	Measured at full load and 347 Vac input.
Inrush Current	-	15A	15.5A	At 400Vac input, 25°C cold start.
Inrush Current (I2*t)		0.3		A2Sec （50%Imax to 50%Imax ）
PF	0.95	-	-	At 347-400Vac, full load
THD	-	4.9%	20%	At 347-400Vac, 20%-100% load(Typ@347Vac,20% load)
	-	4.87%	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		120V	
Output Current-Vo1	0.8A		2.5A	
Output Current-Vo2	0.5A		1A	
No Load Output Voltage-Vo1	-	-	500V	
No Load Output Voltage-Vo2	-	-	160V	
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	-20°C	-	50°C	

Ta				
Storage Temperature	-20°C	-	+85°C	
Dimensions Inches (L × W × H) Millimeters (L × W × H)	17.8 × 1.77 × 1.67in, ±0.02 452±0.5 × 44.9+1.5 × 42.4+1 mm			
Net Weight	-	950g, ±50	-	

Dimming Specifications

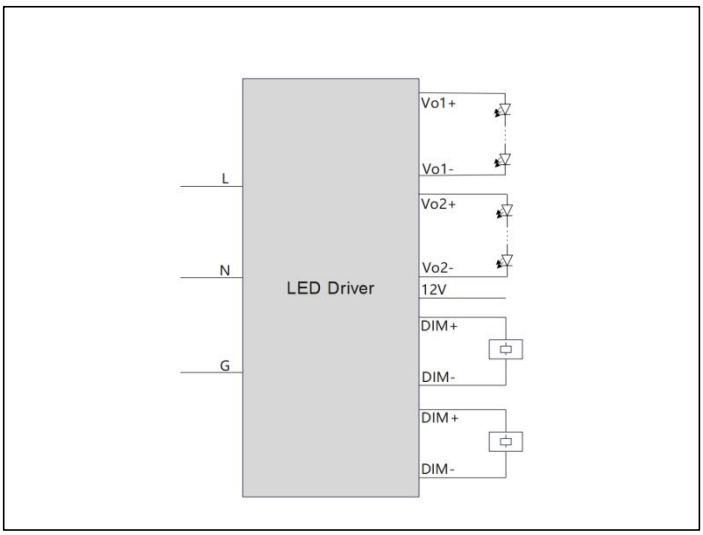
Parameter	Min.	Typ.	Max.	Notes
Absolute Maximum Voltage on the Vdim (+) Pin	0V	-	15 V	
Source Current on Vdim (+)Pin	180 uA	200 uA	220 uA	
Dimming Output Range	10% Io set	-	Io set	80% Io max ≤ Io set ≤ 100% Io max
	8% Io max	-	Io set	Io set ＜80% Io max
Recommended Dimming Input Range	0 V	-	10 V	Default 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%	-	

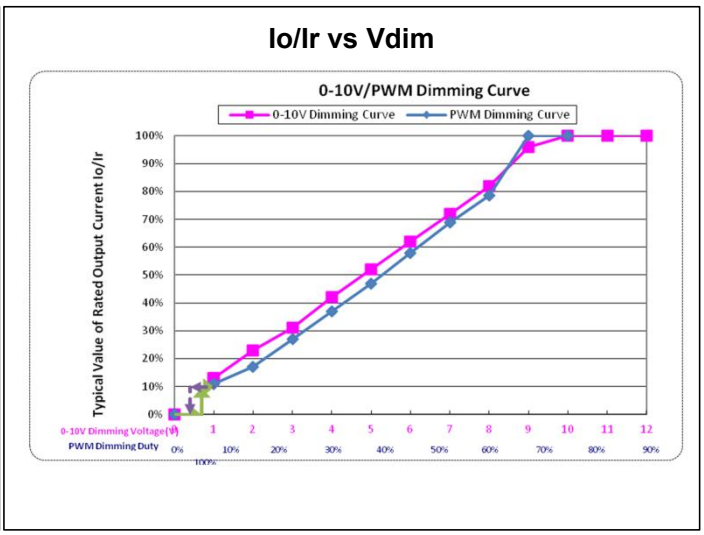
Safety &EMC Compliance

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

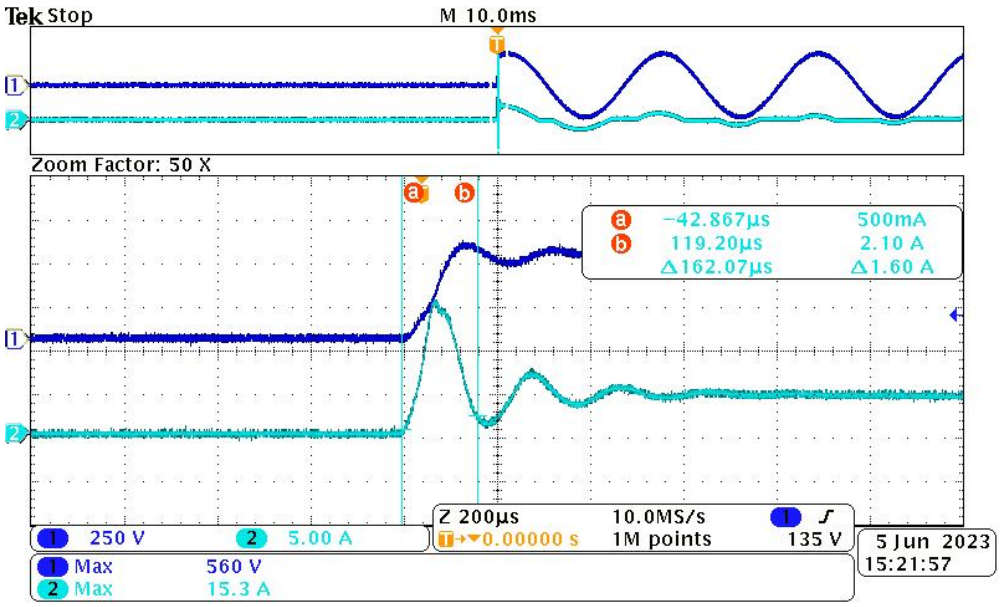
0-10V Analog Dimming &PWM Dimming



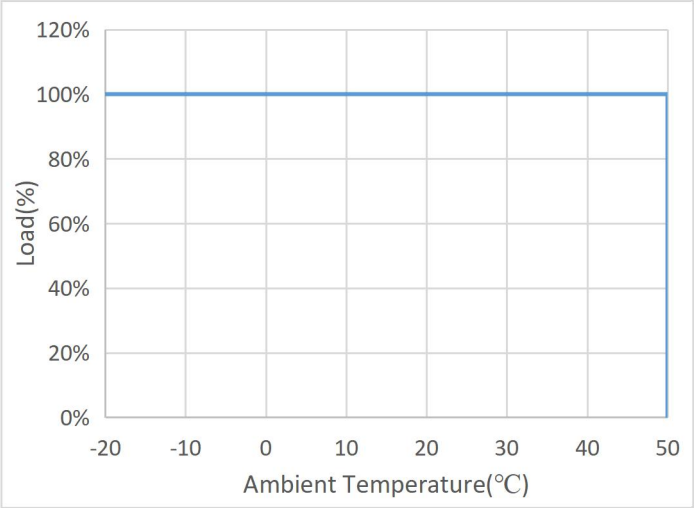


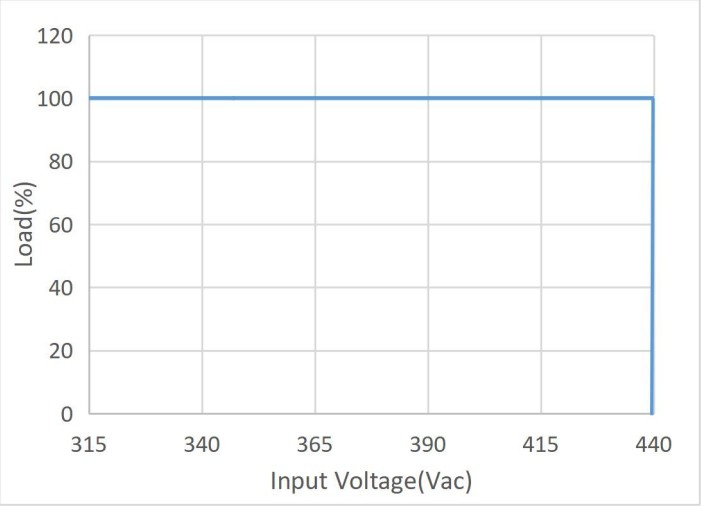
Performance Curve

Inrush Current

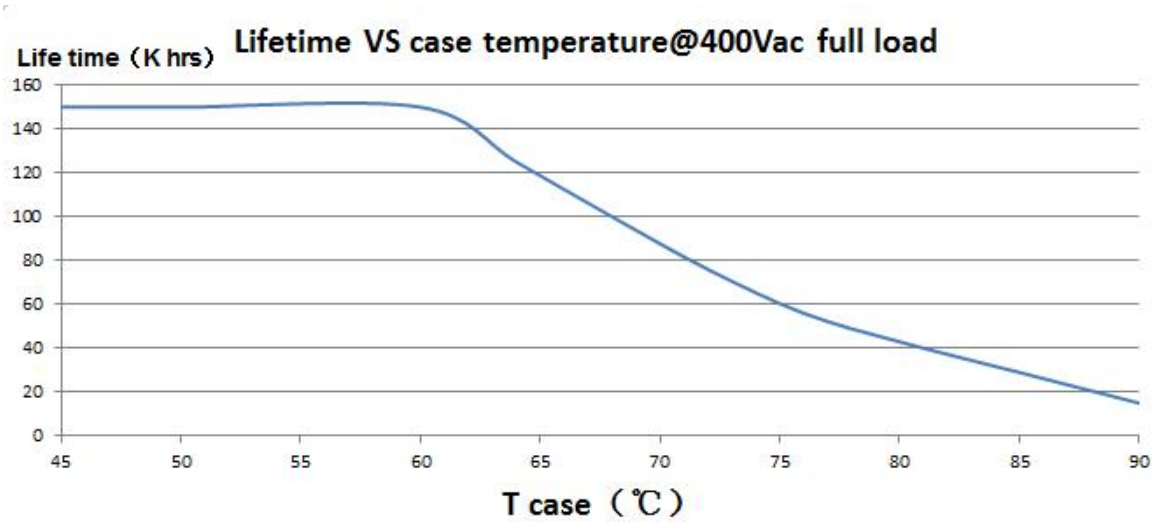


Derating curve

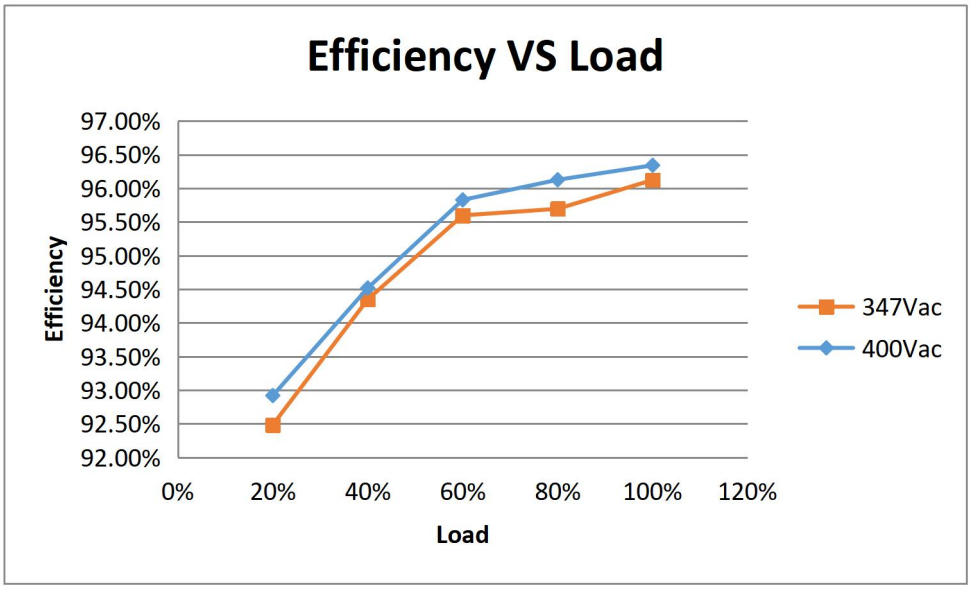




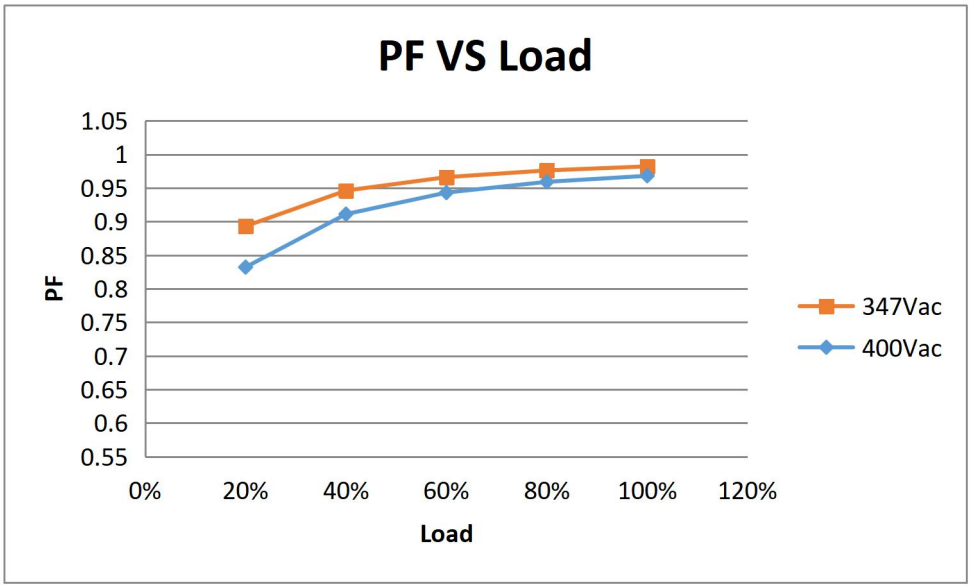
Lifetime VS case temperature



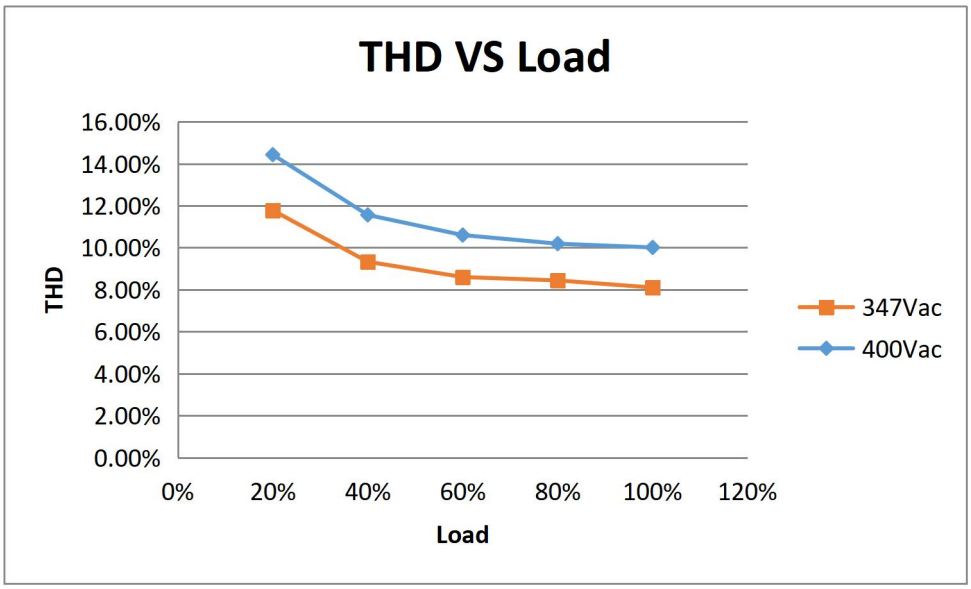
Efficiency VS Load



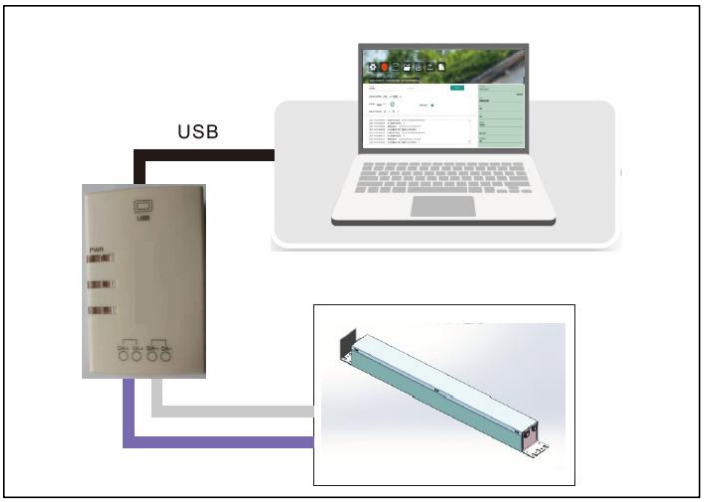
PF VS Load



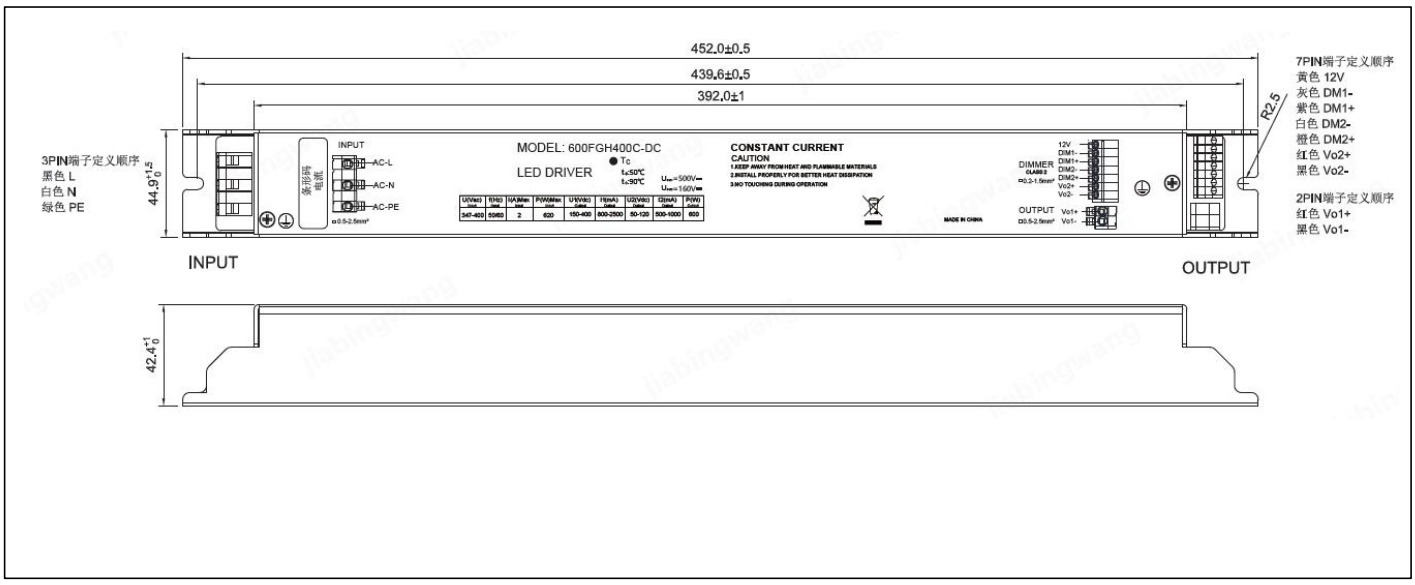
THD VS Load



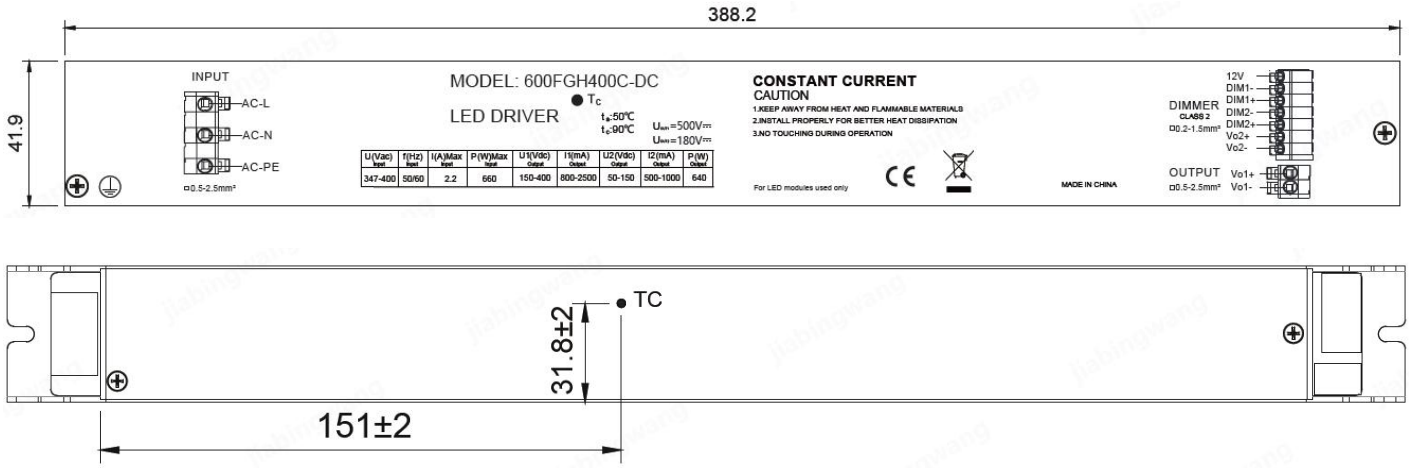
Programming wiring diagram



Mechanical Specification



LABEL



Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2023/07/05	1.0			
2024/06/07	1.1	Performance Curve	NA	inrush current,efficieny/PF/THD VS Load curve