c UL us LISTED E332689 Class P

PRODUCT FEATURES

- Universal input voltage: 108-380Vac;
- Constant current design, Efficiency up to 95%;
- 3-in-1 isolated dimming: 0-10Vdc, PWM, Resistor;
- Dim-to-off;
- Surge protection: 6KV line-line, 6KV line-earth;
- 12V/0.2A auxiliary power supply;
- Multiple protection: SCP, OVP, OTP;
- IP65 design for indoor and outdoor applications;
- 5 years warranty.

APPLICATION

- Suitable for industrial lighting.

DESCRIPTION

G6C-96W series is specially designed for industrial lighting applications. It is constant current LED driver that operates from 120-347Vac with 0-10V and PWM dimming function. This round integrated structure enables it to have a better heat dissipation cooler, significantly improving reliability and extending product life. To ensure trouble free operation, protection is provided against input surge, output over voltage, short circuit, and over temperature.

MODELS

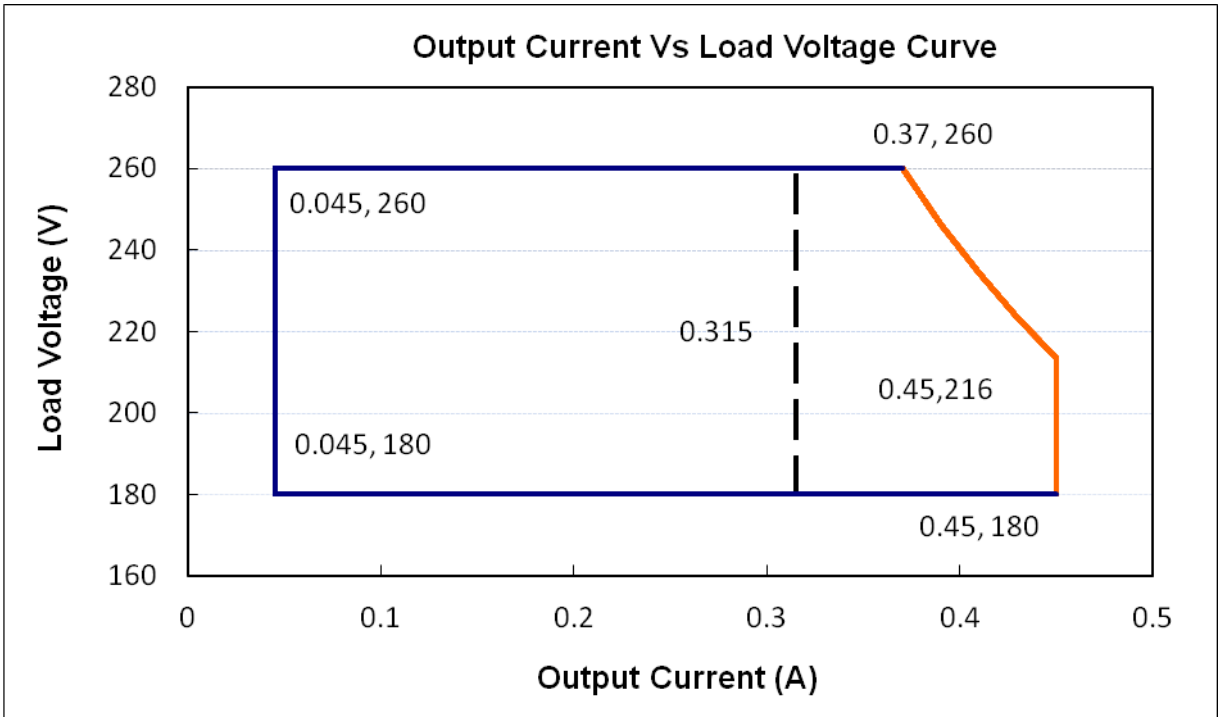
Model Number	Max Output Power (W)	Output Voltage Range (Vdc)	Output Current Adjustable Range (A)	Full Power Current Adjustable Range (A) [1]	Default Output	Typical Efficiency [2]	Power Factor	
							120Vac	347Vac
G6C-096M260A12	96	180-260	0.315-0.45	0.37-0.45	180-213V/0.45A	95%	0.99	0.90

Notes:

[1]. Output current adjustable range with constant power at max output power;

[2]. All specifications are measured at 25℃ ambient temperature, input voltage 347Vac, and the typical value tested by full load, if no specific note.

OPERATING AREA I-V



Notes：Adjustable range of resistance is suitable for the right area of the dotted line.

The drivers are not allowed to work in over-load condition, otherwise warranty will expire.

INPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	108Vac	120-347Vac	380Vac	
Input Frequency	47Hz	50/60Hz	63Hz	
Leakage Current	-	-	0.75mA	347Vac/60Hz
Input AC Current	-	-	1.1A	120-347Vac & full load
Inrush Current(I^2T)	-	-	1.5A^2S	277Vac, full load
Power Factor	0.97	0.99	-	120Vac, full load
	0.95	0.97	-	277Vac, full load
	0.90	0.92	-	347Vac, full load
THD	-	5%	10%	120Vac-277Vac, 80%-100% load
	-	10%	15%	347Vac, 80%-100% load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-8%	-	+8%	
Output Current Range (A)	0.315	-	0.45	
Total Output Current Ripple (pk-pk)	-	5%	10%	20MHz BW, 100% Load& load is LED, ripple is different with difference LED load
Startup Overshoot Current	-	-	10%	120-347Vac & 100% Load, load is LED
No Load Output Voltage(V)	-	290V	320V	
Standby Power G6C-096M260A12			2.0W	Dim-to-off
Line Regulation	-1%	-	+1%	25℃±10℃ambient,temperature,input voltage changes from 120Vac to 347Vac
Load Regulation	-3%	-	+3%	25℃±10℃ambient,temperature,277Vac input, load changes from 80% to 100%
Turn-on Delay Time	-	-	1.0S	120Vac, 100% load
	-	-	1.0S	347Vac, 100% load
12V auxiliary output voltage	10.8V	12V	13.2V	25℃±10℃ambient temperature, 347Vac，100% load
12V auxiliary output source current	0mA		200mA	

GENERAL SPECIFICATIONS

Parameter		Min.	Typ.	Max.	Notes
Efficiency @120Vac		90%	92%	-	25℃±10℃ambient temperature, 100% load, 12V No load
Efficiency @277Vac		92%	94%	-	25℃±10℃ambient temperature, 100% load, 12V No load
Efficiency @347Vac		93%	95%	-	25℃±10℃ambient temperature, 100% load, 12V No load
Dielectric Strength	Input-PE	-	1700Vac	-	5mA/60S
	Output- PE	-	-	-	
Grounding Resistance		-	-	0.1Ω	25A/60S
Insulation Resistance		10MΩ	-	-	Input-PE, Output-PE, 500Vdc/60S/25℃/70%RH
MTBF		-	200000Hrs	-	25℃±10℃ambient temperature, 347Vac,80% load (MIL-HDBK-217F)
Lifetime		-	50000Hrs	-	347Vac&100% load,75℃case temperature, refer to lifetime VS Tc curve for details
Operating Case Temperature for Safety Tc_s		-40℃	-	+90℃	
Operating Case Temperature for Warranty Tc_w		-40℃	-	+75℃	5 years warranty Humidity: 10% to 95% RH

Storage Temperature	-40℃	-	+85℃	Humidity: 5% to 100% RH
Dimensions (D×H)mm	Φ130×64.1			
Net Weight	950±150g/PCS			
Package	L490*W370*H185mm; 8PCS/Ctn.			

DIMMING

Parameter		Min.	Typ.	Max.	Parameter
0-10V Absolute Maximum Voltage on the Vdim (+) Pin		-	10V	-	
0-10V Source Current on Vdim(+)Pin		-	1mA	2mA	
Dimming Output Range	G6C-096M260A12	0%	-	100%Imax	Imax=0.45A
Leviton					IP710-DLZ 0-10V Dimmer
Lutron					Diva 8 Amp 3 向/单极 0-10V 调光器 白色,DVSTV-WH
Recommended Dimming Range for 0-10V		0V	-	10V	Default 0-10V/PWM dimming <0.7V-0.9V or 7%-10% PWM, Dim to off 0.9-1.35V or 10%-13% PWM, Dim to on
PWM_in High Level		9.7V	-	10.3V	
PWM_in Low Level		0.7V	-	0.9V	
PWM_in Frequency Range		400Hz		2KHz	
PWM_in Duty Cycle		0%	-	99%	
Dimming Accuracy		-	-	10%	

SAFETY STANDARDS

Safety Category	Country / Territory	Standards	Whether have Certification
CCC	China	GB19510.1, GB19510.14	
CE	Europe	EN61347-1, EN61347-2-13	
		EN62493	
ENEC		EN62384	
CB	CB Countries	IEC61347-1, IEC61347-2-13	
BIS	India	IS 15885(PART 2/SEC 13)	
UL	USA	UL 8750	√
CUL	Canada	CSA C22.2 No.250.13	√
KC	South Korea	K61347-1, K61347-2-13	
PSE	Japan	J61347-1, J61347-2-13	
SAA	Australia	AS/NZS IEC 61347.2.13	
		AS/NZS 61347.1	

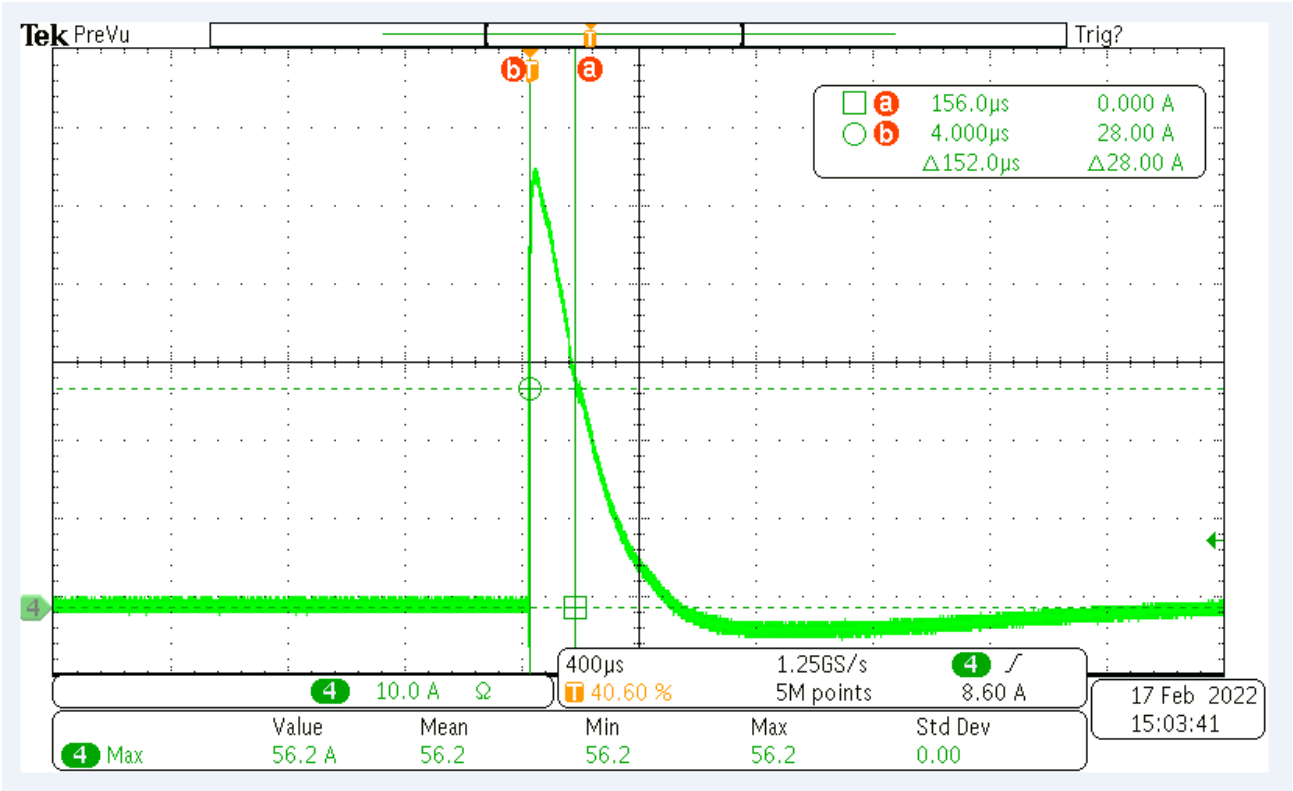
EMC COMPLIANCE

EMC Category	Country / Territory	Standards	Whether have Certification
CCC	China	GB/T 17743, GB 17625.1	
CE	Europe	EN 55015	
		EN 61000-3-2, EN 61000-3-3	
		EN61000-4-2,3,4,5,6,11	
		EN 61547	
KC	South Korea	K61547, K00015	
PSE	Japan	J55015	
FCC	USA	FCC part 15	√
Surge testing standard		ANSI C82.77-5:2017	2Ω

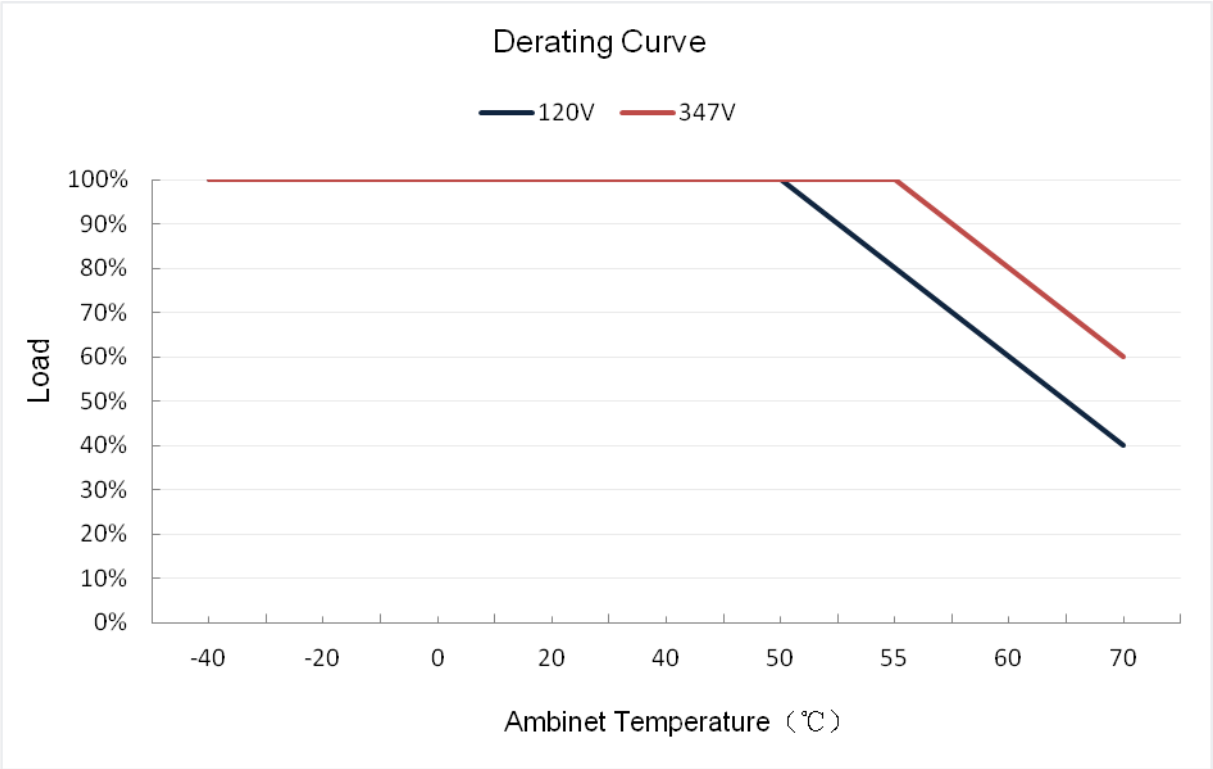
NOTE:

This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

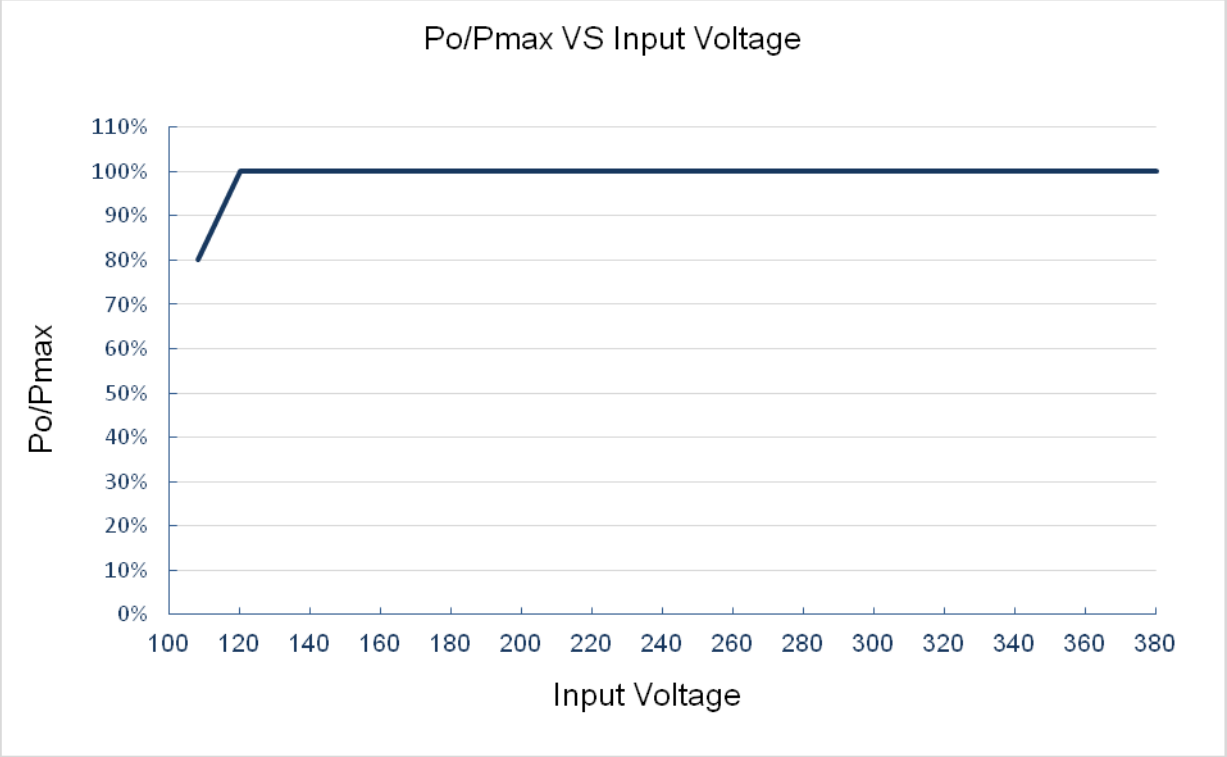
INRUSH CURRENT WAVEFORM



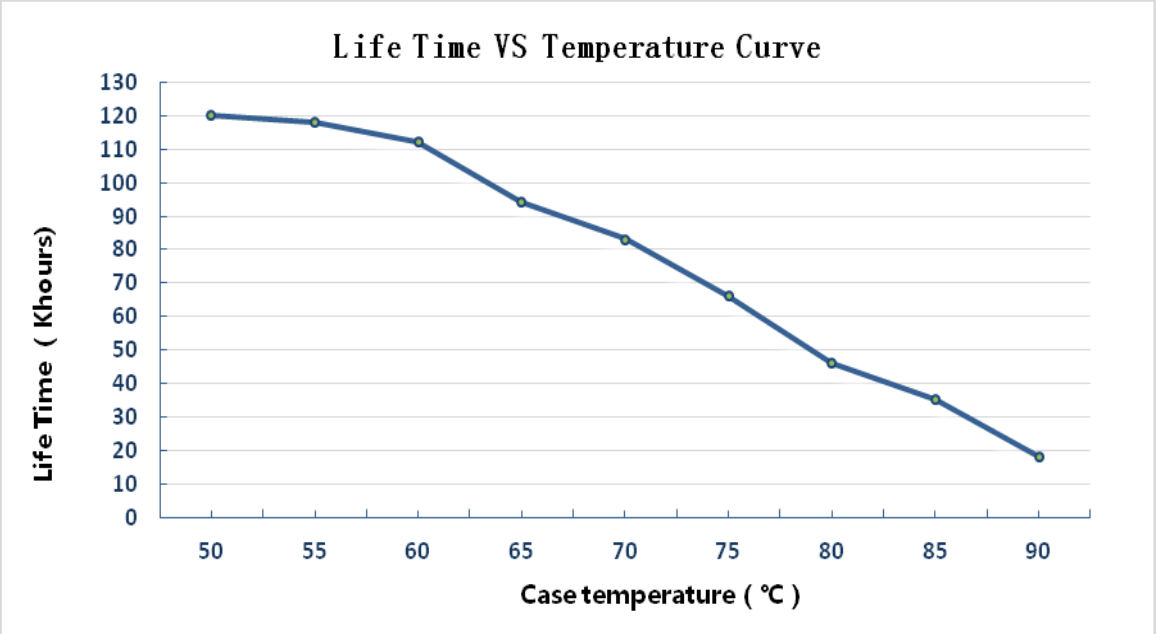
DERATING CURVE



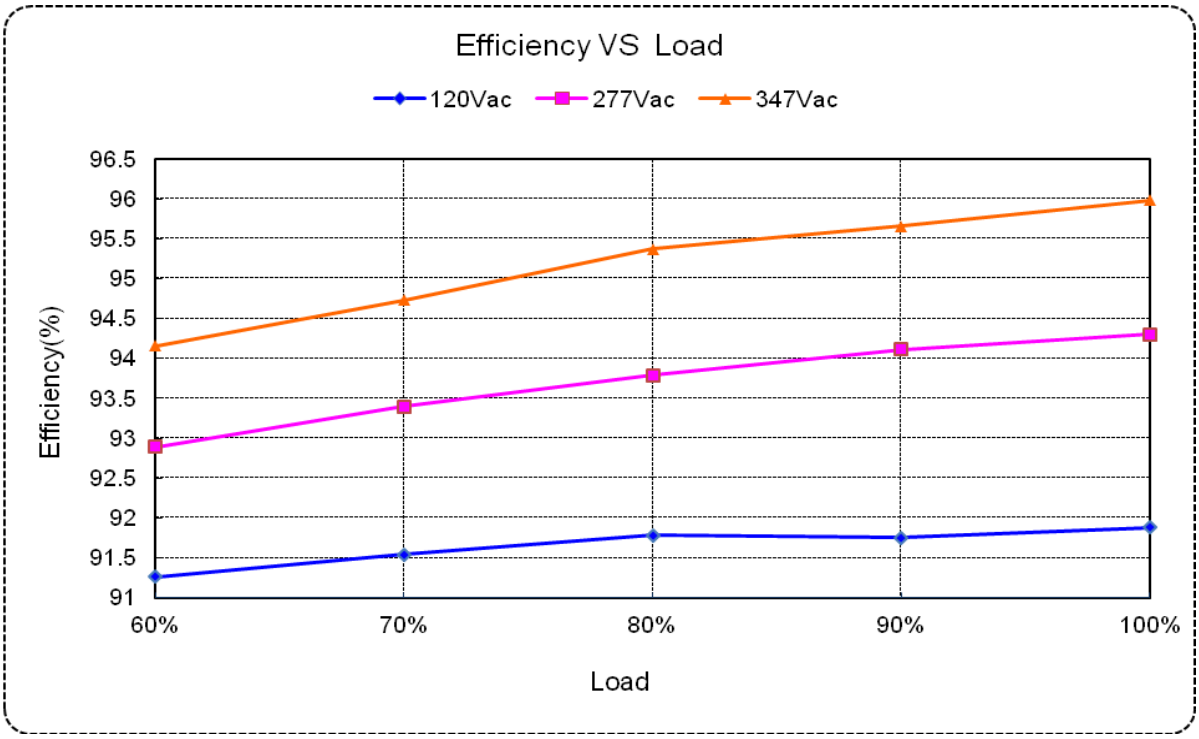
OUTPUT POWER VS INPUT VOLTAGE



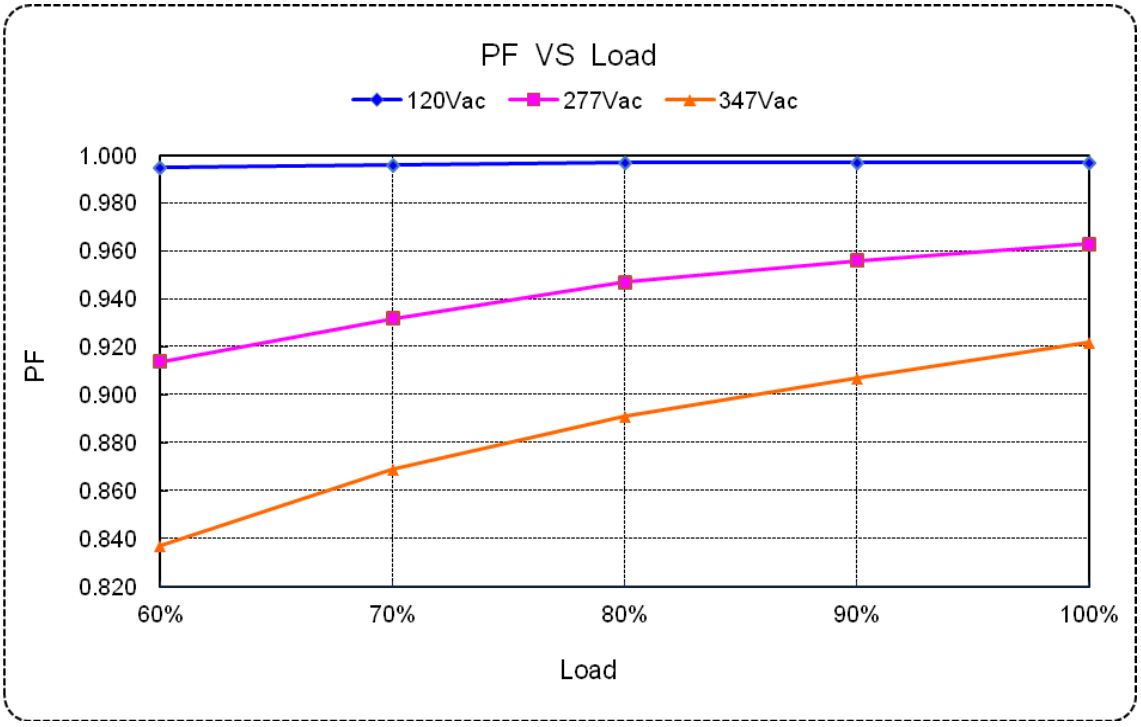
LIFETIME VS CASE TEMPERATURE



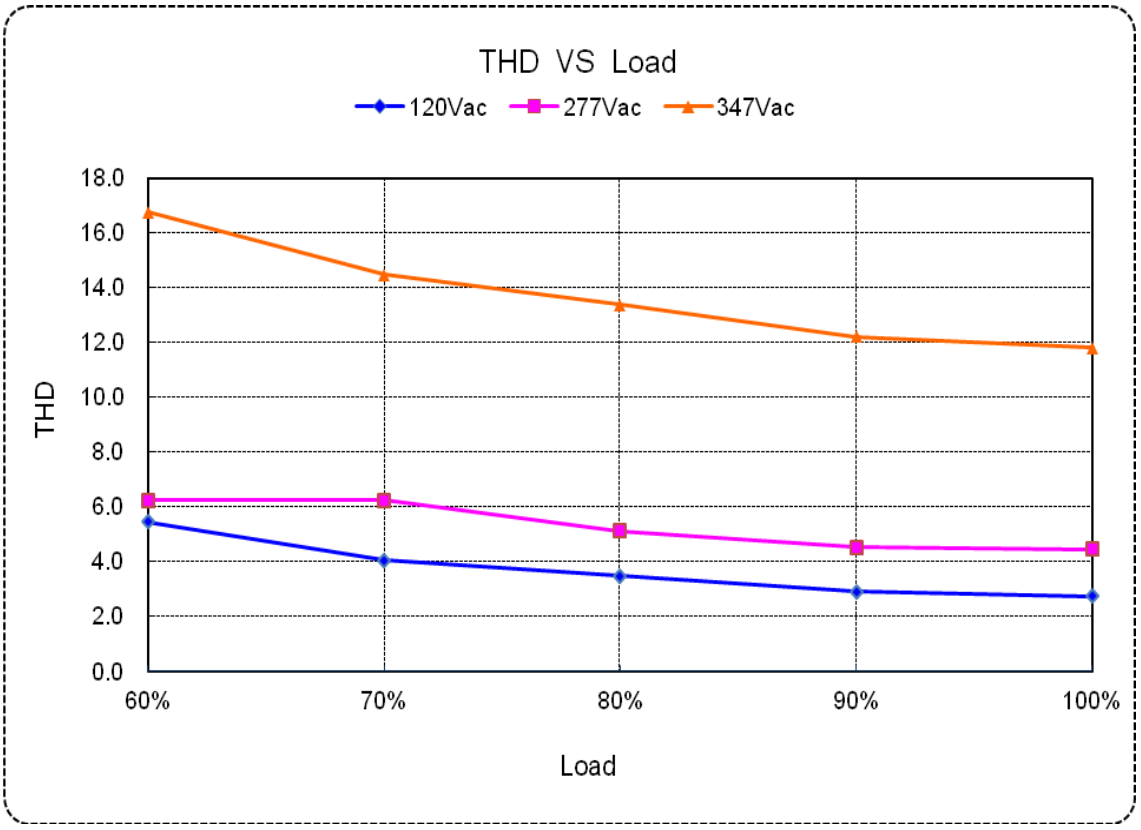
EFFICIENCY VS LOAD



POWER FACTOR VS LOAD



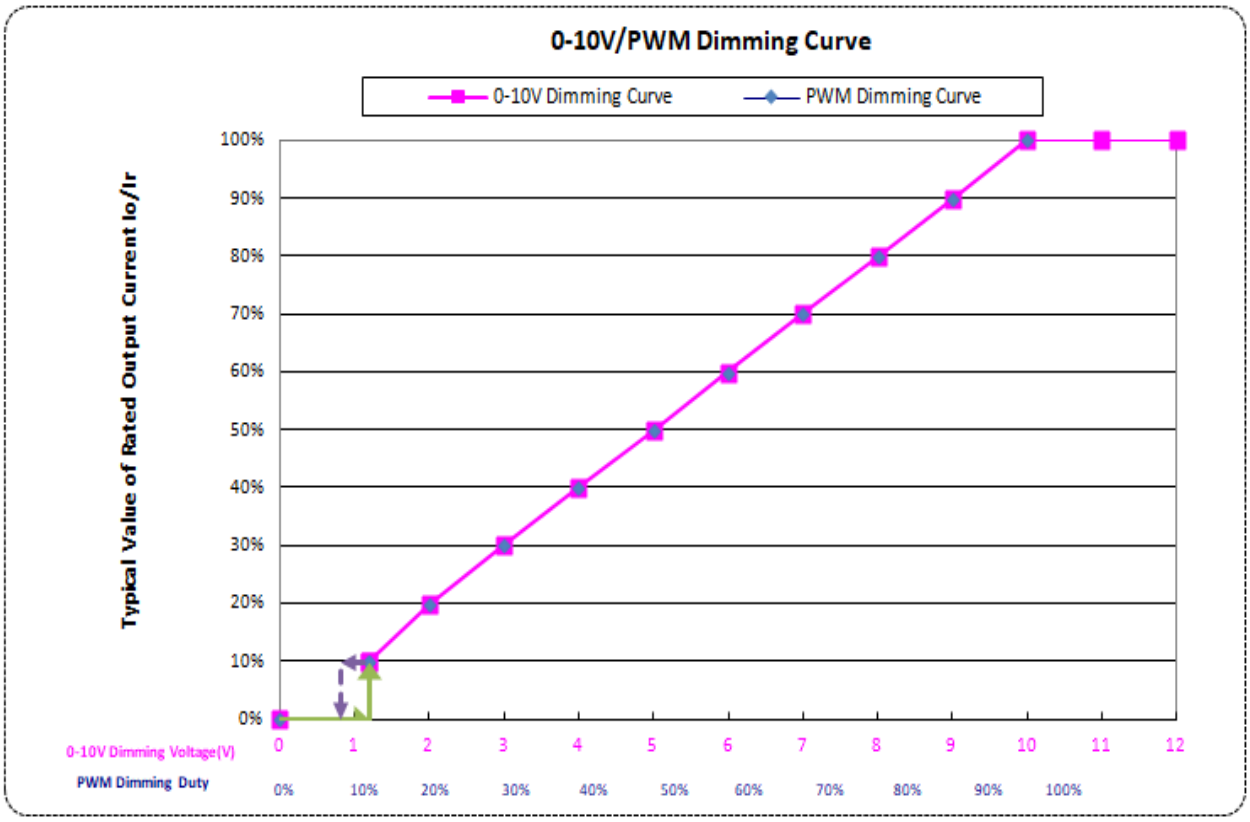
TOTAL HARMONIC DISTORTION



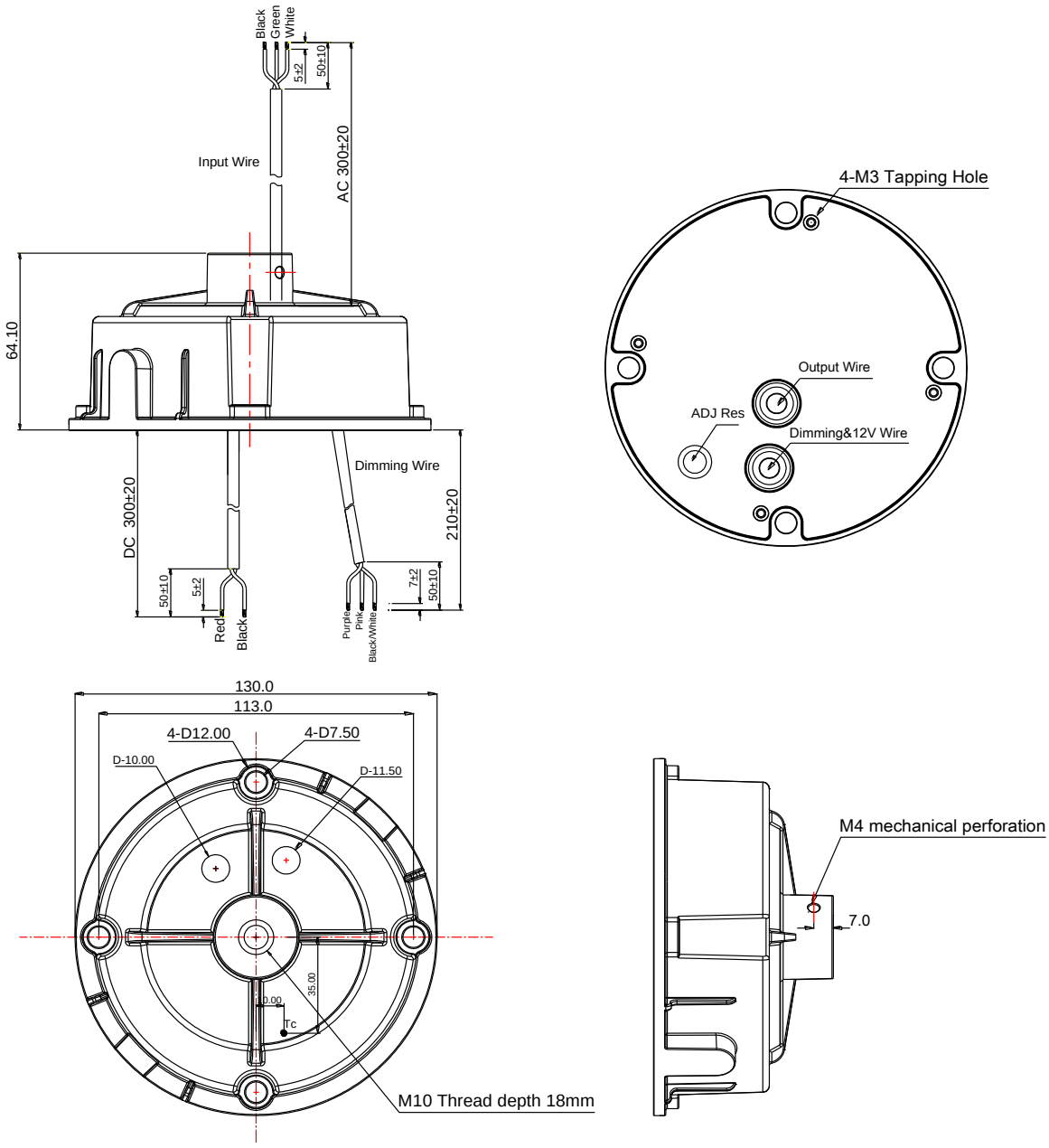
PROTECTIONS

Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed, exclude auxiliary power supply.
Short Circuit Protection	Hiccup mode and auto recovery. No damage will occur when any output is short circuited. The output shall return to normal when the fault condition is removed.
Over Voltage Protection	Run into protection model when output voltage exceeds limit, and return to normal when the fault.

0-10V/PWM DIMMING CURVE



MECHANICAL OUTLINE



Note: Case color: RAL 9017 matte black.

Wire	Specification	Note
Input	UL STW 18AWG *3C L=300±20mm	UL
Output	UL SJTW 18AWG*2C L=300±20mm	UL
Dimming	UL21996 22AWG*3C L=210±20mm	UL

LABEL


90.00 mm
40.00 mm
Input
L Black
G Green
N White
MOSO®
G6C-096M260A12
Constant current type
Uout(No Load): 290V⎓
Input 120-347V～50/60Hz, 1.1A Max.,120W,PF:0.9C
Output Output voltage:180-260V⎓; Irated:0.045-0.450A, Prated:96W Max.
tc:90℃ ta:50℃
IP65
RoHS
Class P
Suitable for use in Dry, Damp and Wet locations
"For Connections Use Wire Rated for at Least 90°C (194°F)" or equivalent
MADE IN CHINA
c UL us LISTED E332689
Output
Red "+"
Black "–"
Control signal (0-10Vdc, PWM)
Purple DIM"+"
Pink 12V/DIM"–"
Dimming Range 10%–100%
Wired Control Circuits: Class 2
White/Black 12V"+" (12V 200mA)
Patented Product
Copyright reserved
S20000A02F01

REVISION HISTORY

Version	Description of Change		Date	Notes
	Before	Now		
A.1		Original Release	2022-09-13	

Product Specification

Product Name: 96W Non-isolated LED driver

Product Model: G6C-096M260A12

Rev. A.1

Address: XiLiSongbai Road 1061, Nanshan District, Shenzhen City, Guangdong Province, P.R.China
Post Code: 518108
TEL: 0755-27657000
FAX: 0755-27657908
E-mail: wcx@mosopower.com
Web site: http://www.mosopower.com

Prepared By	Checked By	Approved By

Specification for Approval

Product Name: 96W Non-isolated LED driver

Product Model: G6C-096M260A12

Rev. A.1

CUSTOMER AUTHORIZED SIGNATURE		
Tested By	**Checked By**	**Approved By**
(Company seal)Return one copy to MOSO with approved signature and company seal.		

Prepared By	Checked By	Approved By