

## Description

P6H-200W series is specially designed for Horticulture Lighting and industrial lighting applications. It is constant current LED driver that operates from 220-400Vac with 0-10V and PWM dimming function. This Rectangle 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. The better thermal design and high efficiency enables the driver to operating with high reliability, and extending product lifetime. Overall protection is provided against lightening surge, output over voltage, short circuit, and over temperature, to ensure low failure rate.



## Product Features

- input voltage / Full range: 198~440Vac;
- Constant current design,
- Efficiency up to 95%;
- 3-in-1 isolated dimming: 0-10Vdc, PWM, Resistor;
- Adjustable Output Current (AOC) with resistor;
- Dim-to-off; No glow after Dim-to-off
- Surge protection: 4KV line-line, 6KV line-earth;
- Auxiliary power supply; 12V/0.2A
- Multiple protection: SCP, OVP, OTP;
- IP20 design for indoor and outdoor applications;
- 5 years warranty.

## Application

Horticultural lighting  
Linear Lighting  
Industrial lighting,

## Models

Model Number	Input Voltage Range(Vac)	MAX Output Power(W)	Output Voltage Range(Vdc)	Full Power Output Range(Vdc)	Default Current(A)	Eff.(Typ.)	PF(Typ.)	THD(Typ.)
P6H-200M360A12H	220-400	200	240-360	250-360	0.8	94%	0.98	5%

### NOTES:

[1]. M means 0-10V/PWM dimming.

[2]. A12 means Auxiliary source.

[3]. All specifications are measured at 25°C ambient temperature, input voltage 220Vac, and the typical value tested by full load, if no specific note.

## Input Specifications

Parameter	Min	Typ.	Max	Notes
Input Voltage Typ.	220Vac	277/347Vac	400Vac	
Input Voltage Range	198Vac	-	440Vac	
Input Frequency AC	47Hz	50/60Hz	63Hz	
Max Input Current	-	-	1.2A	198Vac&Full Load
Max Input Power	-	-	230W	198Vac&Full Load
Leakage Current	-	-	0.70mA	400Vac/60Hz
Inrush Current	-	0.15A <sup>2</sup> S	0.27 A <sup>2</sup> S	400Vac, full load,50%~50% peak pulse duration
Inrush Current	-	10A	12A	400Vac&Full Load, Cold Start
Standby Power Consumption	-	-	0.5W	230Vac&50Hz, Dim to off, Auxiliary Power Without Load
Power Factor(PF)	0.970	0.990	-	220Vac, 50/60Hz, 100% Load
Power Factor(PF)	0.940	0.960	-	277-347Vac, 50/60Hz, 100% Load
Power Factor(PF)	0.920	0.940	-	400Vac, 50/60Hz, 100% Load
Power Factor(PF)	0.910	0.940	-	220-400Vac, 50/60Hz, 80%-100% Load
Total Harmonic Distortion(THD)	-	5%	10%	220-400Vac, 50/60Hz, 100% Load
Total Harmonic Distortion(THD)	-	6%	15%	220-400Vac, 50/60Hz, 80%-100% Load
MCB(B16)	-		11	220Vac

## Output Specifications

Parameter	Min	Typ	Max	Notes
Output Voltage Range	240V	-	360V	The full power cannot be lower than 250V
Open Circuit Voltage	-	-	400V	
Output Current Range	10%Iset	-	100%Iset	Adjustable Output Current with resistor; Iset=0.8A
Full Power Current Range	0.56A	-	0.8A	
Current Accuracy	-5% Iset	-	+5% Iset	
Total Output Current Ripple (pk-pk)	-	5%	10%	20MHz BW, full load& LED load, the ripple would be tiny different under different LED load.
Startup Overshoot Current	-	5%	10%	220~400Vac & 100% Load, load is LED
Auxiliary source output voltage	11.4	12	12.6	220~400Vac & 100% Load
Auxiliary source output current	-	-	200mA	
Line Regulation	-1%	-	+1%	25°C±10°C ambient temperature, input voltage changes from 220Vac to 400Vac.
Load Regulation	-2%	-	+2%	25°C±10°C ambient temperature, Input Voltage 400Vac, load changes from 50% to 100%.
Turn-on Delay Time	-	-	1 s	230Vac & 100% Load, load is LED

## General Specifications

Parameter	Min	Typ	Max	Notes
Efficiency@220Vac	93.5%	94.5%	-	Measured at full load and 25°C ambient temperature 12V No Load,100% Load
Efficiency@277Vac	94.0%	95.0%	-	
Efficiency@400Vac	94.5%	95.5%	-	
Mean Time Between Failure	-	200000hours	-	25°C±10°C ambient temperature, 220Vac,80% load (MIL-HDBK-SR-332)
Lifetime	-	50000hours	-	Tc=75°C, 220Vac&100% load
Operating Temperature	-40°C	-	+50°C	220Vac&100% load
Operating Tc for Safety Tc_s	-40°C	-	+80°C	
Operating Tc for Warranty Tc_s	-40°C	-	+75°C	5 years warranty case temperature Humidity: 10% to 95% RH No condensation
Storage Temperature	-40°C	-	+85°C	Humidity: 10% to 100% RH
Altitude	-60m		4000m	
Input Under voltage Protection	130Vac	150Vac	170Vac	
Over Temperature Protection	-	-	95°C	Tc; 220Vac&100% load
Short Circuit Protection	-	-	-	self-recovery
Dimensions (L*W*H)mm	332.90mm*43.00mm*40.00mm			
Net Weight	580±50g/PCS			
Package	L494mm*W413mm*H172mm; 27PCS/ctn, Gross Weight: 16.4kg			

## DIMMING

Parameter	Min	Typ	Max	Notes
Absolute Maximum Voltage	-20	10V	20V	On the Vdim (+) Pin
Source Current on Vdim (+)Pin	0.09mA	0.1mA	0.2mA	
Dimming Range	10% I <sub>set</sub>	-	100% I <sub>set</sub>	I <sub>set</sub> =0.56A-0.8A
Suggest Dimming Input 0-10V	0V	-	10V	
Turn-on Voltage	1.0V	-	1.4V	
Turn-off Voltage	0.5V	-	0.9V	
PWM_in High Level	9.7V	-	10.3V	
PWM_in Low Level	0V	-	0.3V	
PWM_in Frequency Range	300Hz	-	3KHz	
PWM_in Duty Cycle	0%	-	99%	
Turn-on Duty Cycle	10%	-	14%	
Turn-Off Duty Cycle	5%	-	9%	
Resistor Dimming	-	-	100K	

## Safety Specification

Dielectric Strength (Input-Dim/AUX)	-	3600Vac	-	60S , Current not exceeding 5mA
Dielectric Strength (Input-Ground)	-	1880Vac	-	60S , Current not exceeding 5mA
Dielectric Strength (Output-Ground)	-	1880Vac	-	60S , Current not exceeding 5mA
Grounding Resistance	-	-	0.1Ω	25°C±10°C Ambient Temperature, pass 25A Current, 60s.
Insulation Resistance	10MΩ	-	-	Input-PE, Output-PE, 500Vdc/60S/25°C/70%RH

## Safety Compliance

Safety Category	Standards	Approved	Notes
CCC	GB/T 19510.213, GB/T 19510.1		
CE	EN61347-1, EN61347-2-13	√	
CE	EN62493	√	
ENEC	EN62384		
CB	IEC61347-1, IEC61347-2-13	√	
BIS	IS 15885(PART 2/SEC 13)		
UL	UL 8750	√	
CUL	CSA C22.2 No.250.13	√	
KC	K61347-1, K61347-2-13		
PSE	J61347-1, J61347-2-13		
SAA	AS/NZS IEC 61347.2.13		
	AS/NZS 61347.1		

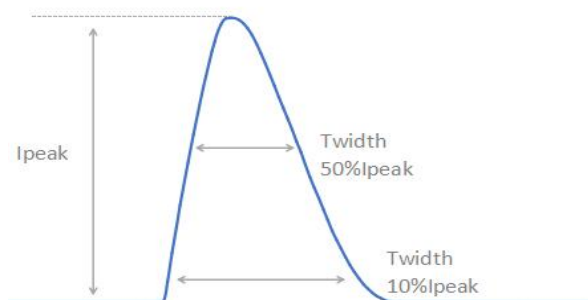
## EMC Compliance

EMC Category	Standards	Approved	Notes
CCC	GB/T 17743-2021, GB 17625.1-2022		
CE	EN 55015	√	
CE	EN 61000-3-2, EN 61000-3-3	√	
CE	EN61000-4-2,3,4,5,6,11	√	
CE	EN 61547	√	
KC	K61547		
KC	K00015		
PSE	J55015		
FCC	FCC part 15	√	
Surge Shock Immunity			
Ringing Wave			

## RoHS

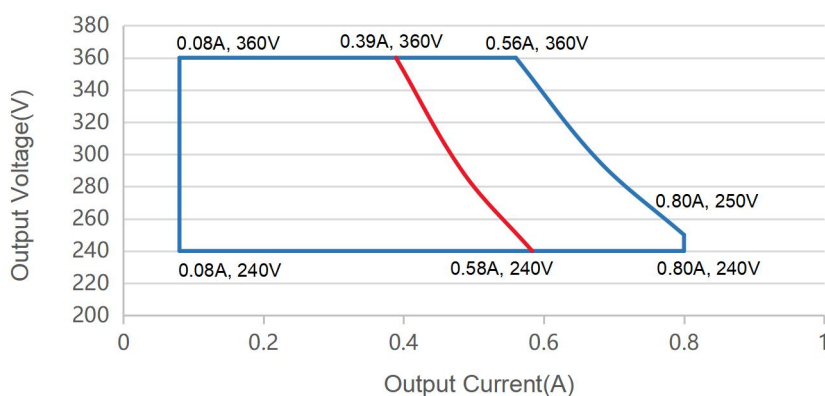
Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.

**Inrush Current**

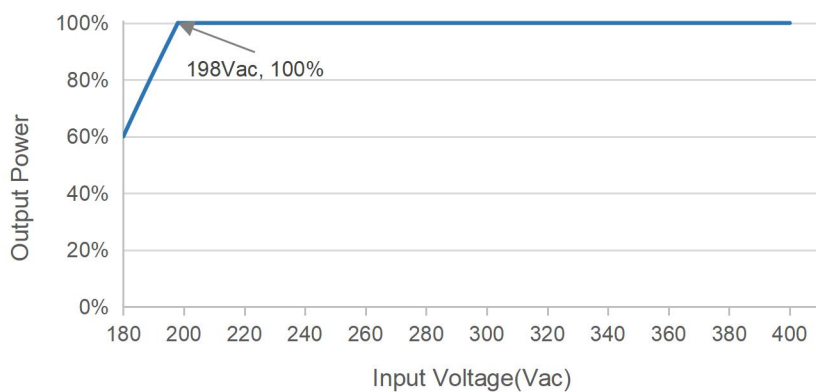


$V_{in}$	$I_{peak}$	$T_{@10\% \text{ of } I_{peak}}$	$T_{@50\% \text{ of } I_{peak}}$
220Vac	3.68A	2.66ms	1.44ms
277Vac	4.56A	2.74ms	1.52ms
347Vac	5.68A	2.72ms	1.54ms
400Vac	6.52A	2.80ms	1.60ms

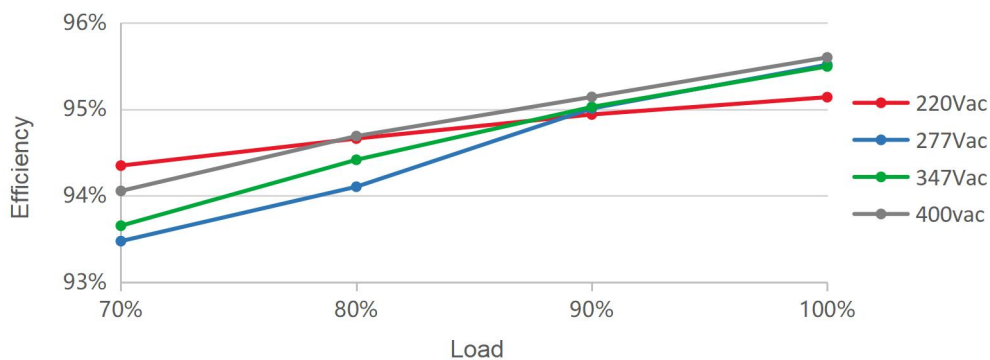
**Output Voltage vs. Output Current**



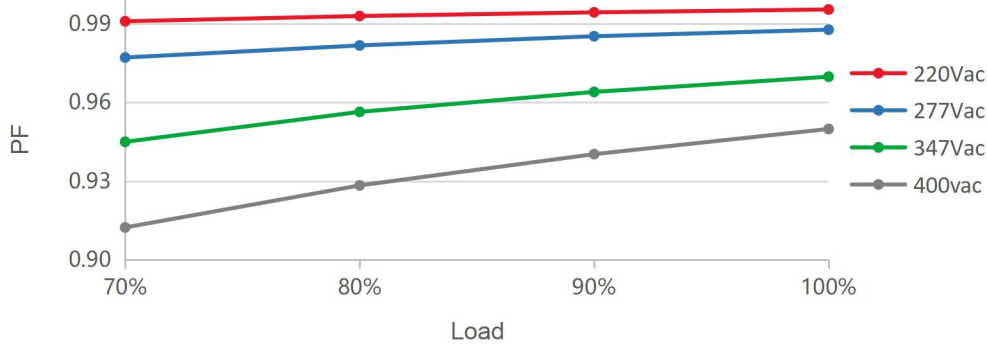
**Output Power vs. Input Voltage**



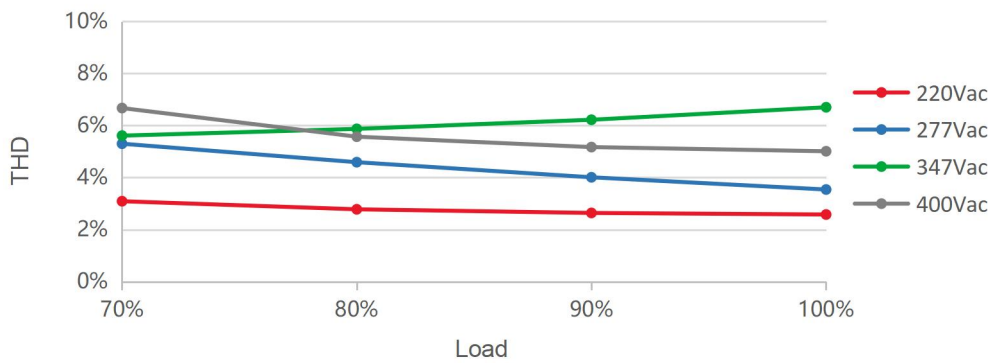
**Efficient vs. Load**



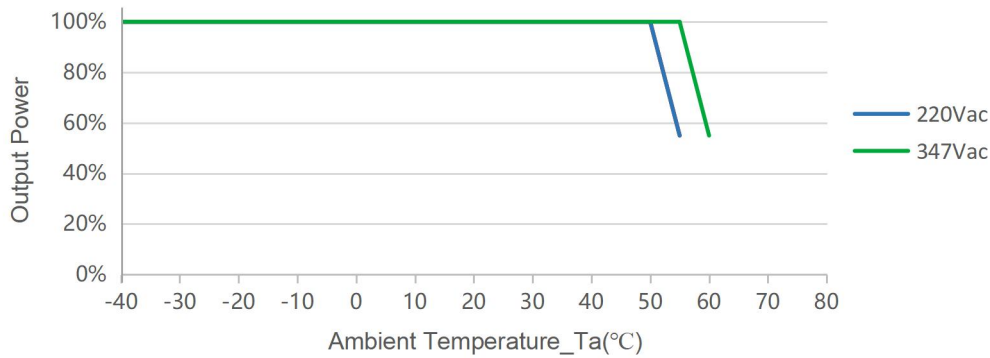
**PF vs. Load**



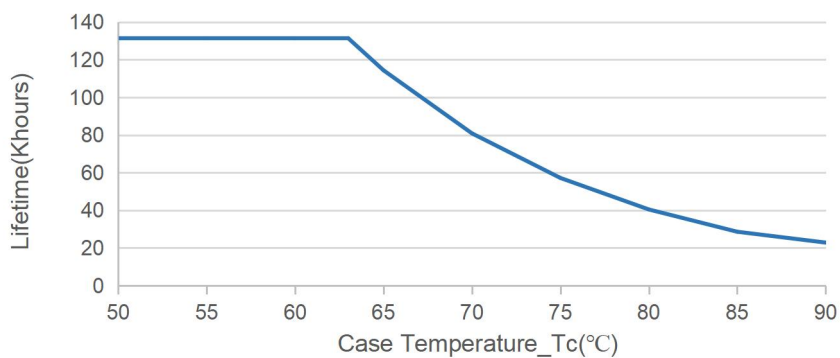
**THD vs. Load**



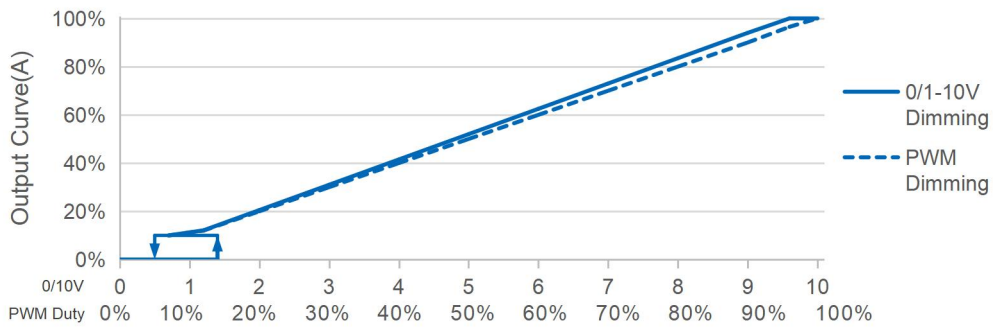
**Output Power vs. Ambient Temperature**



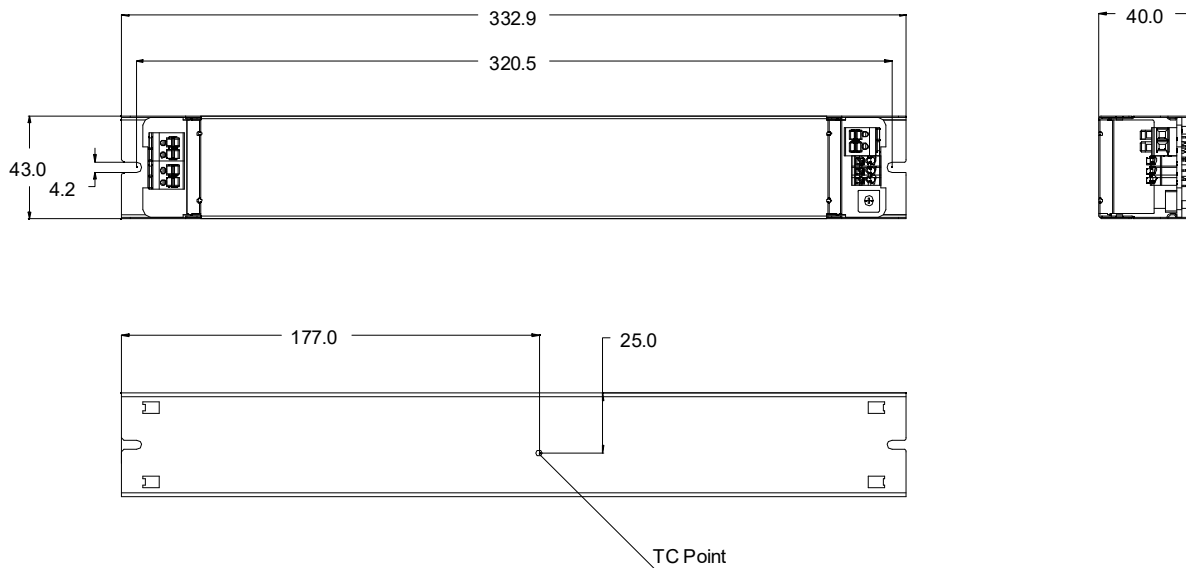
**Lifetime vs. Case Temperature**



### 0-10V/PWM Dimming



**Mechanical Outline**



**Connections**

<b>Input (L,N,G)</b>	Wire Cross-section 0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup>	Push-in at 45°angle, solid and stranded wire
<b>Output</b>	Wire Cross-section 0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup>	Push-in at 45°angle, solid and stranded wire
<b>Dimming</b>	Wire Cross-section 0.34 mm <sup>2</sup> - 0.75 mm <sup>2</sup>	Push-in at 45°angle, solid and stranded wire

**Label**

 <input type="checkbox"/> N <input type="checkbox"/> L	<b>MOSO</b> <sup>®</sup> P6H-200M360A12H LED DRIVER Constant current type	    RoHS  	Integrated SPD MADE IN CHINA For LED module only The lamp control/gear relies upon the luminaire enclosure for protection against accidental contact with live parts.	Suitable for Dry, Damp locations SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO., LTD No.1061, Songbai Road, Xili Town, Nanshan District, Shenzhen, CHINA	<input type="checkbox"/> LED+
					<input type="checkbox"/> INPUT INPUT 220-400V~ 50/60Hz, 1.2A Max. 230W Max. PF:0.9C-0.95 OUTPUT 240-360V~ 0.08-0.80A U <sub>out</sub> = 400V~ Max.Power: 200W t <sub>c</sub> : 80°C t <sub>a</sub> : 50°C Input:220-400V~

**Version**

Version	Description	Release Date
A.1	First release	2024-12-23

# Specification for Approval

Product Name: 200W Non-isolate LED Driver

Product Model: P6H-200M360A12H

Rev: A.1

Address: XiLi Songbai Road 1061, Nanshan District, Shenzhen City, Guangdong, China

Tel: 0755-27657000

FAX: 755-27657908

E-mail: [info@mosopower.com](mailto:info@mosopower.com)

Web Site: <http://www.mosopower.com>

Prepared By	Checked By	Approved By

# Specification for Approval

Product Name: 200W Non-isolate LED Driver

Product Model: P6H-200M360A12H

Rev : A.1

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

Address: XiLi Songbai Road 1061, Nanshan District, Shenzhen City, Guangdong, China

Tel: 0755-27657000

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Web Site: <http://www.mosopower.com>

<b>Prepared By</b>	<b>Checked By</b>	<b>Approved By</b>