

Description

N8H series is specially designed for industrial lighting applications. with 0-10V / PWM / Resistance(+12V Auxiliary) 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 short circuit, and over temperature, to ensure low failure rate.



Product Features

- Input voltage range: 180~528Vac;
- Constant Power design, Efficiency up to 97%;
- NFC programmable adjustable Three time control options are available. The constant power function can be turned off. Light attenuation compensation, dimming off point can be set, and NTC over-temperature protection can be set.
- Control scheme: 0-10V/PWM/ resistance/time control dimming, light attenuation compensation, offline programming;
- Auxiliary source output: 12V,300mA
- The AC power measurement accuracy is as high as 1%.
- Output and dimming signal isolation;
- Dimming off without afterglow;
- Double live wire disconnection (there will be no afterglow even if the neutral wire and the live wire are reversed);
- Standby power consumption: <0.5W@230V;
- low inrush current: <30A;
- Dimming off without afterglow;
- External NTC supported (optional);
- Surge protection: DM 6KV, CM10KV (12Ω) / US standard;DM 6KV, CM 6KV (2Ω);
- Multiple protection: Input UVP, OVP, Output SCP, OTP, constant power;
- Ingress protection rating: IP67 ;
- 5 years warranty.

Application

Area and flood lighting
 High-bay lighting
 Sport lighting
 Horticulture lighting
 Aquaculture lighting

Models

Model Number	Input Voltage Range (Vac)	Max Output Power(W)	Output Voltage Range(Vdc)	Full Power Output Current Range(A)	Default Current(A)	Eff. (Typ.)	PF(Typ.)	THD(Typ.)
N8H-880M500A12	180-528	880	200-500	1.76~3.40	2.6	97.5%	0.97	10%

Notes:

[1]. All specifications are measured at 25℃ ambient temperature, input voltage 400Vac, and the typical value tested by full load, if no specific note.

Input Specifications

Parameter	Min	Typ.	Max	Notes
Input Voltage Range	180Vac	-	528Vac	Input below 200Vac, derated output
Input Voltage Typ.	200Vac	-	480Vac	
Input Frequency AC	47Hz	50/60Hz	63Hz	
Max Input Current	-	-	5.0A	200Vac & 100% load
Max Input Power			980W	200Vac & 100% load
Leakage Current	-	-	0.70mA	IEC 60598-1; 240Vac/400Vac/50Hz
Inrush Current	-	-	30A	480Vac, 100% load, Cold start
Standby Power Consumption	-	-	0.5W	230Vac, dimming off and auxiliary source without load
Power Factor (PF)	0.95	0.98	-	230Vac, 50Hz, 60%-100% Load.
Power Factor (PF)	0.90	-	-	200-480Vac, 50/60Hz, 60%-100% Load.
Total Harmonic Distortion (THD)	-	10%	20%	200-480Vac, 50/60Hz, 60%-100% Load.
MCB(B16)	-	3	-	

Output Specifications

Parameter	Min	Typ.	Max	Notes
Output Voltage Range	200Vdc	-	500Vdc	
NO-Load Output Voltage	-	-	600Vdc	
Output Current Range	10%Io	-	100%Io	Io=3.4A
Current Accuracy	-5%	-	+5%	
Total Output Current Ripple (pk-pk)	-	-	10%	20MHz BW full load & LED load 25°C ambient temperature, the ripple would be tiny different under different LED load.
Startup Overshoot Current	-	-	10%	200~480Vac full load condition, LED load
Line Regulation	-3%	-	+3%	25°C±10°C ambient temperature, input voltage changes from 200Vac to 480Vac.
Load Regulation	-3%	-	+3%	25°C±10°C ambient temperature, Input Voltage 400Vac, load changes from 80% to 100%.
Turn-on Delay Time	-	-	3s	220-480Vac, 100%load
Auxiliary source output voltage	10.8Vdc	12Vdc	13.2Vdc	200~480Vac & Auxiliary source with full load.
Auxiliary source output current	-	-	300mA	Within a 6.0ms cycle, the maximum peak current is 500mA, The longest duration is 2.2ms, Within a 5.2ms cycle, the maximum peak current is 850mA, The longest duration is 1.3ms,

General Specifications

parameter	Min	Typ.	Max	Notes
Efficiency@220Vac	94.0%	95.0%	-	400Vdc, 80~100% load , Auxiliary Power Without Load, 25°C ambient temperature
Efficiency@277Vac	94.0%	95.5%	-	400Vdc, 80~100% load , Auxiliary Power Without Load, 25°C ambient temperature
Efficiency@347Vac	94.5%	96.5%	-	400Vdc, 80~100% load , Auxiliary Power Without Load, 25°C ambient temperature
Efficiency@400Vac	95%	97.0%	-	400Vdc, 80~100% load , Auxiliary Power Without Load, 25°C ambient temperature
Efficiency@480Vac	95.5%	97.5%	-	400Vdc, 80~100% load , Auxiliary Power Without Load, 25°C ambient temperature
Mean Time Between Failure	-	200Khours	-	25°C±10°C ambient temperature, 230Vac, 80% load condition (MIL-HDBK-217/SR-332)
Lifetime	-	50Khours	-	220Vac & 100% load, Tc 75°C, refer to Lifetime vs. Case Temperature
Operating Temperature Ta	-40°C	-	+50°C	200~277Vac, refer to Output Power vs. Ambient Temperature
Operating Temperature Ta	-40°C	-	+55°C	277~480Vac, refer to Output Power vs. Ambient Temperature
Operating Tc for Safety Tc_s	-40°C	-	+90°C	
Operating Tc for Warranty Tc_w	-40°C	-	+75°C	5-year warranty case temperature, humidity: 10% to 95% RH
Storage Temperature Ta	-40°C	-	+85°C	Humidity: 5% to 100% RH
Altitude	-60m	-	4000m	
Over Temperature Protection Tc	90°C	95°C	100°C	Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection	-	-	-	Self-recovery .
Dimensions (L*W*H)	303*125*44.5mm			
Net Weight	3180±100g/PCS			
Package(L*W*H)	539 *515 *161 mm; 5PCS /ctn, Gross Weight: 17Kg			

Dimming

Parameter	Min	Typ.	Max	Notes
Absolute Maximum Voltage	-	10V	15V	
Source Current on Vdim (+)Pin	-	100uA	200uA	
Dimming Range	10% I _{max}	-	100% I _{max}	I _{max} =3.40A
Suggest Dimming Input 0-10V	0V	-	10V	
Turn-on Voltage	0.7V	0.8V	1.1V	
Turn-off Voltage	0.5V	0.7V	0.8V	
PWM_in High Level	9.7V	-	10.3V	
PWM_in Low Level	0V	-	0.3V	
PWM_in Frequency Range	1KHz	-	2KHz	
PWM_in Duty Cycle	1%	-	99%	
Turn-on Duty Cycle	7%	8%	11%	
Turn-Off Duty Cycle	5%	7%	8%	
Timer dimming	-	-	-	3 types, which is set by software
Output lumen compensation	-	-	-	Constant lumen output function

Safety Specification

Parameter	CCC	CE	UL	Notes
Dielectric Strength (Input-Ground)	2000Vac	2000Vac	2000Vac	60s, Current not exceeding 5mA
Dielectric Strength (Output-Ground)	2200Vac	2200Vac	2200Vac	60s, Current not exceeding 5mA
Dielectric Strength (Input-Dimming)	3750Vac	3750Vac	2000Vac	60s, Current not exceeding 5mA
Grounding Resistance	0.1Ω(Max)			25°C±10°C Ambient Temperature, pass 30A Current, 120s.
Insulation Resistance	10MΩ(Min)			Input-PE, Output-PE, 500Vac/60s/25°C

Safety Compliance

Safety Category	Standards	Approved	Notes
CCC	GB19510.1, GB19510.14		
CE	EN61347-1, EN61347-2-13, EN62493	√	
ENEC	EN61347-1, EN61347-2-13, 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		

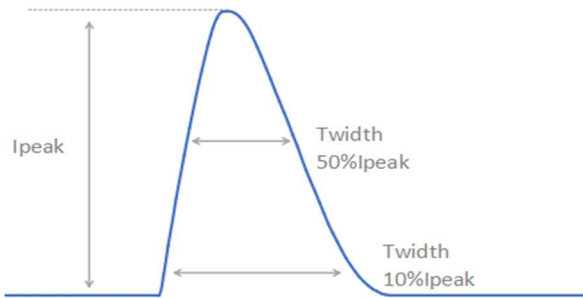
EMC Compliance

EMC Category	Standards	Approved	Notes
CCC	GB/T 17743, GB 17625.1		
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	√	
	ANSI/C82.77-5-2017	√	Meet 6KV / 6KV (2Ω)
	IEC/EN 61000-4-5	√	
	IEC/EN 61000-4-12	√	
	ANSI/IEEE C62.41.2	√	Meet 6KV / 6KV (2Ω)

RoHS

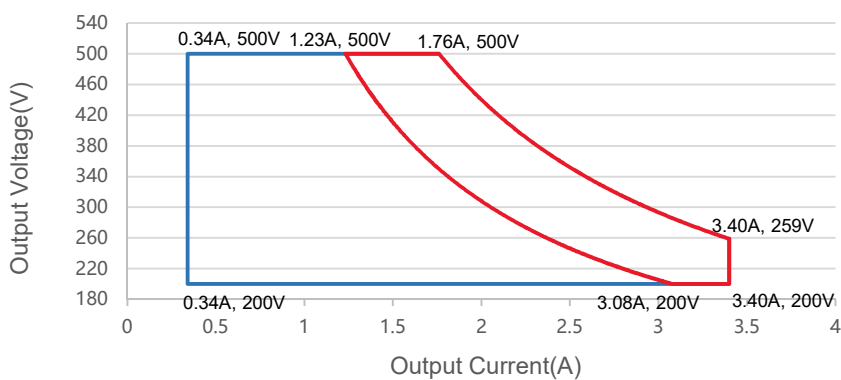
Our products comply with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Inrush Current Curve

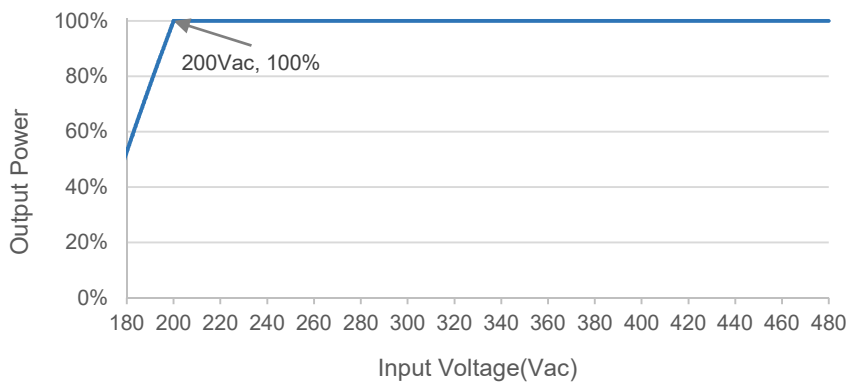


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
220Vac	6.03A	3.26ms	2.09ms
277Vac	7.35A	3.30ms	2.19ms
347Vac	9.45A	3.22ms	2.10ms
400Vac	11.04A	3.34ms	2.07ms
480Vac	13.38A	3.31ms	2.07ms

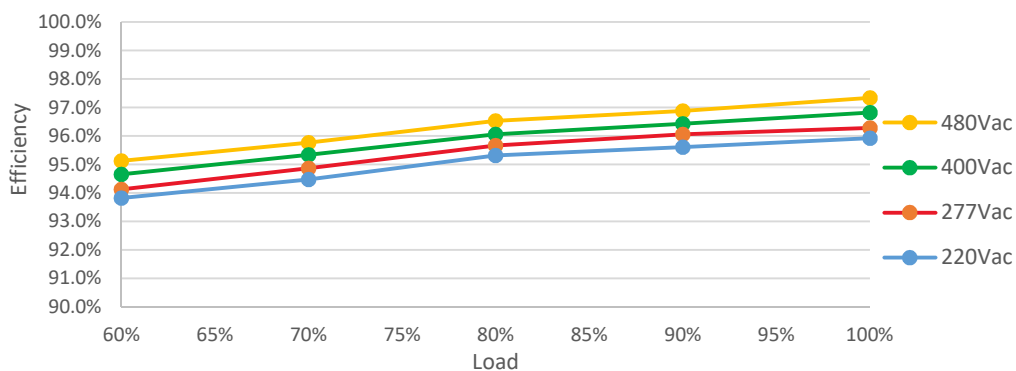
Output Voltage vs. Output Current



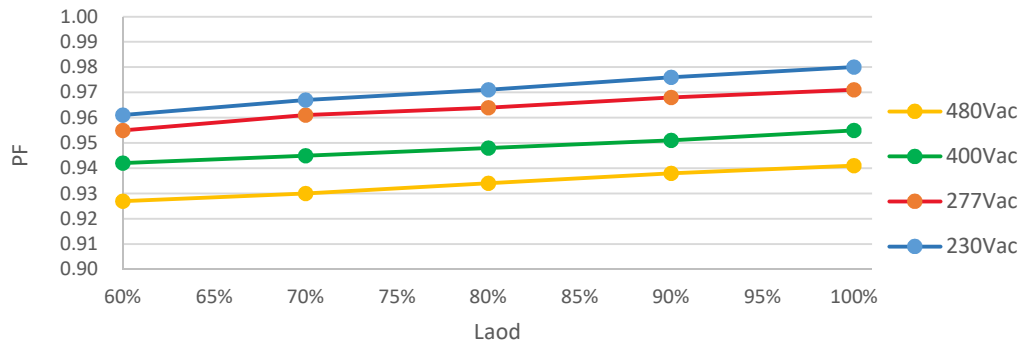
Output Power vs. Input Voltage



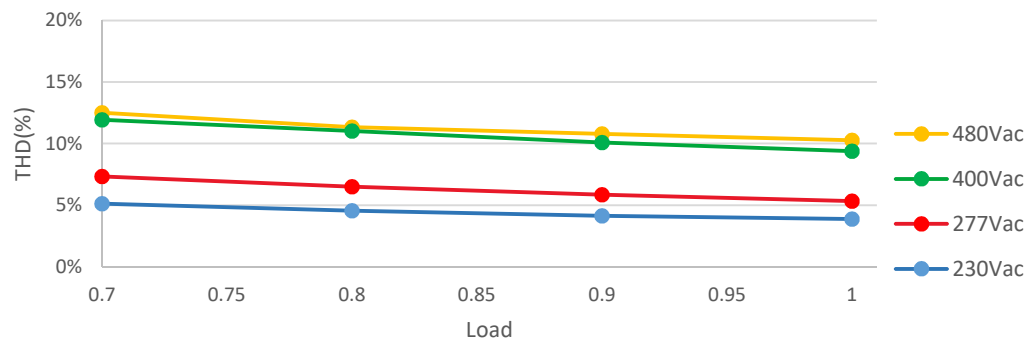
Efficiency vs. Load



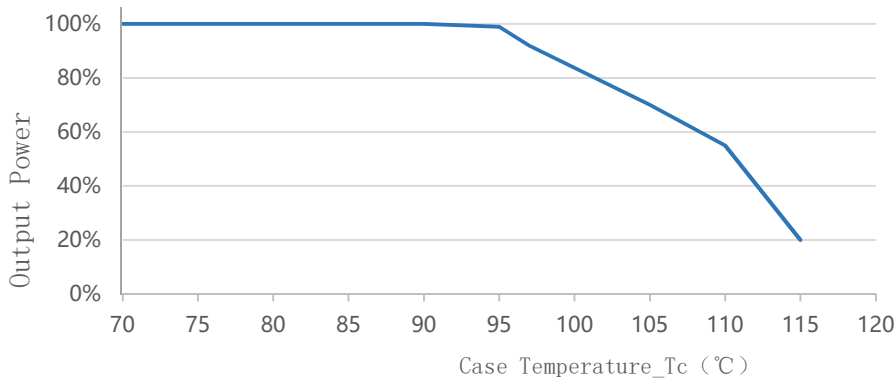
PF vs. Load



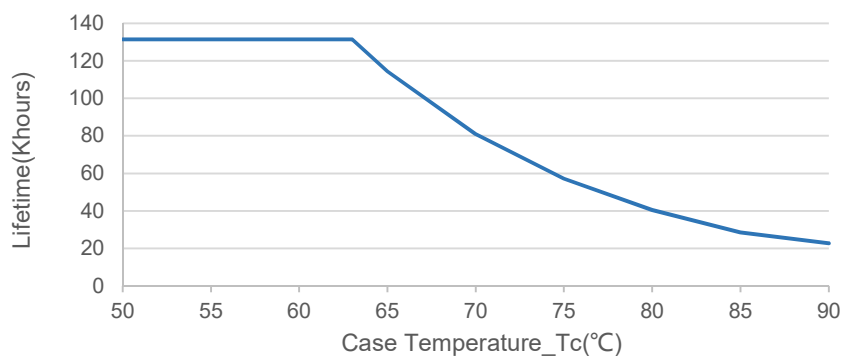
THD vs. Load



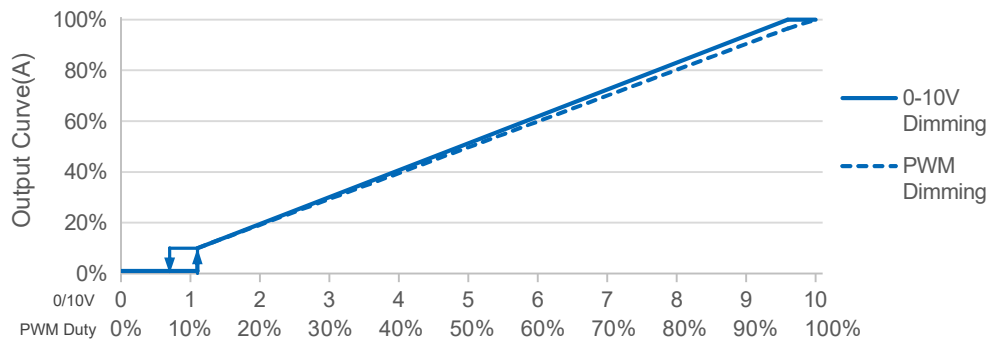
Output Power vs. Case Temperature



Lifetime vs. Case Temperature



0-10V/PWM Dimming



Programmer Adjustable Driver

User-friendly connection of programming without necessary to power on device(suitable for N8H Series).

Programming mode 1

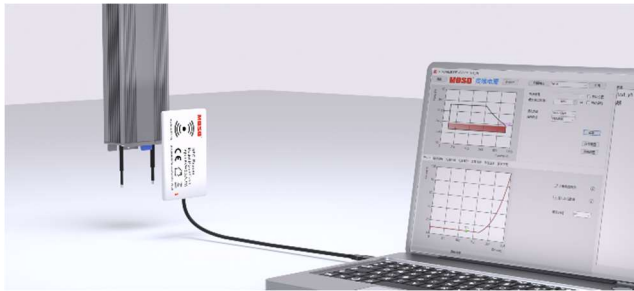


Visual Intelligent Programming

1. Set the output parameters through the control signal line 0-10V optional.
2. Timer dimming. Set the timer control function, support up to 7segments;
3. Set output CLO;
4. Read the recorded system parameters; Record the working time working temperature, and software version information of the LED driver.
5. Configure the driving parameters. After setting is completed, then click the configured parameters to complete programming.

Note : Visual Intelligent Programming adjust the control signal line output is 12V

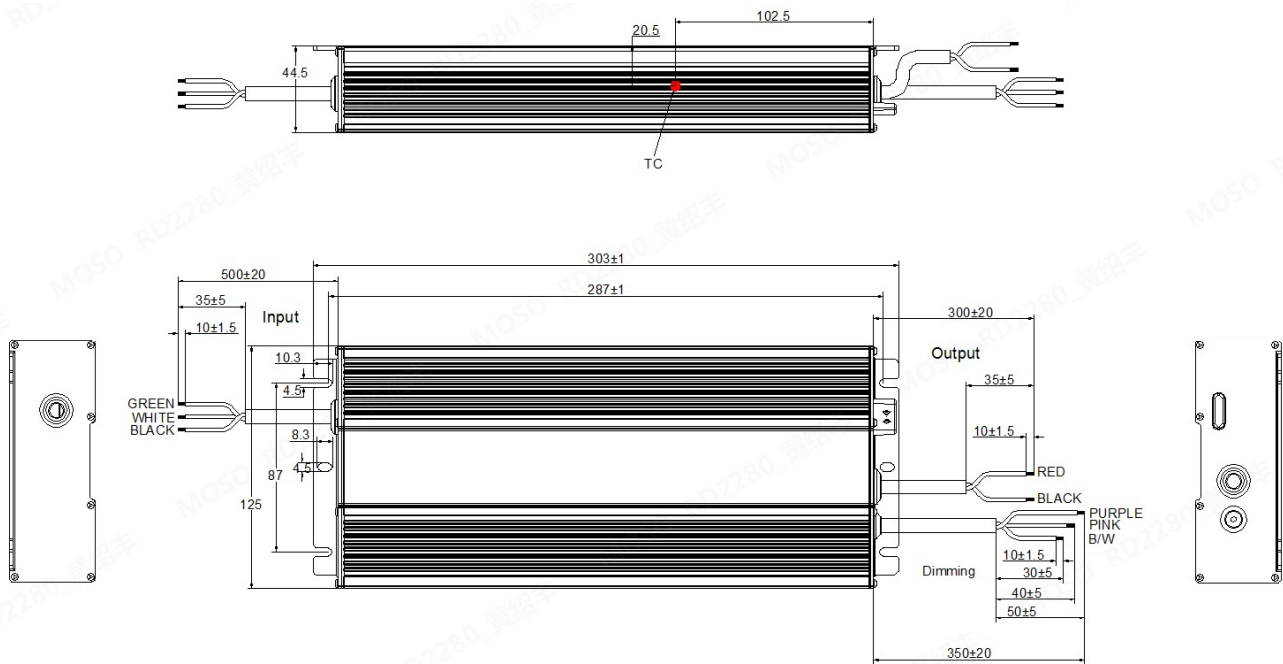
Programming mode 2



Instructions of NFC programmer:

1. The driver does not need to be powered on during the programming process.
2. Please refer to Programming Instruction Manual details.
3. Applicable to FEIG programmer: ISC PRH101 and CPR30-USB.

Mechanical Outline



Connections

Input	SOW 17AWG*3C $\varnothing 9.5 \pm 0.3 \text{mm}$ L=500±20mm	CCC/CE/UL
Output	SOW 17AWG*2C $\varnothing 9.2 \pm 0.3 \text{mm}$ L=300±20mm	CCC/CE/UL
Dimming	UL 21996 22AWG*3C $\varnothing 5.0 \pm 0.2 \text{mm}$ L=350±20mm	UL

Label

		268.00 mm								
INPUT L BROWN G Y/G  N BLUE	MOSO® N8H-880M500A12 LED DRIVER CC mode U_{out} = 600V~ <table><tr><td>INPUT</td><td>200-400V/480V~ 50/60Hz, 5.0A Max.PF:0.9C-0.95, 980W 200-400V~ for EU Certification range 200-480V~ for cUL Certification range</td></tr><tr><td>OUTPUT</td><td>200-500V~ 0.34-3.4A, Max.Power:880W t_a:90°C t_a:50°C Input:200-277V~ t_a:55°C Input:277-400V/480V~</td></tr></table>			INPUT	200-400V/480V~ 50/60Hz, 5.0A Max.PF:0.9C-0.95, 980W 200-400V~ for EU Certification range 200-480V~ for cUL Certification range	OUTPUT	200-500V~ 0.34-3.4A, Max.Power:880W t _a :90°C t _a :50°C Input:200-277V~ t _a :55°C Input:277-400V/480V~	  MADE IN CHINA For LED module only Suitable for Dry, Damp and Wet locations SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO., LTD No.1061, Songbai Road, Xili Town, Nanshan District, Shenzhen, CHINA		 OUTPUT BROWN LED + BLUE LED - PURPLE DIM + PINK DIM - BLACK/WHITE 12V + (12V 300mA) Integrated SPD
	INPUT	200-400V/480V~ 50/60Hz, 5.0A Max.PF:0.9C-0.95, 980W 200-400V~ for EU Certification range 200-480V~ for cUL Certification range								
OUTPUT	200-500V~ 0.34-3.4A, Max.Power:880W t _a :90°C t _a :50°C Input:200-277V~ t _a :55°C Input:277-400V/480V~									
		36.00 mm								

Version

A.1	First release	2026-02-05

Specification for Approval

Product Name: 880W LED Driver

Product Model: N8H-880M500A12

Rev: A.1

Address: XiLi Songbai Road 1061,
Nanshan District, Shenzhen City,
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TEL: 400-889-0018

FAX: 0755-27657908

E-mail: info@mosopower.com

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

Prepared By	Checked By	Approved By

Specification for Approval

Product Name: 880W LED Driver

Product Model: N8H-880M450A12

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.		

XiLi Songbai Road 1061,
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