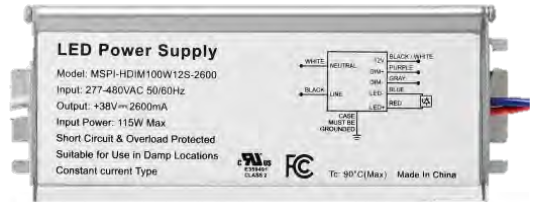


Product Features

- International standard AC voltage input. (277~480V_{AC})
- 12V_{DC} output
- Dimming controls: 1-10V_{dc} and complies with the UL8750 standard
- Up to 89% efficiency
- Active power factor correction
- Protections: Short circuit protection and open circuit protection.
- Lightning Surge Protection: L-N: 4kV, L/N-PE: 6kV.
- 5 years warranty

A



B



UL US
E359491
CLASS 2

FC

Description

The MSPI-HDIM100W12S-XXXX series input voltage ranges from 277 to 480 Vac, which has the advantages of high efficiency, reliability, long service life and so on. All aspects of protection, including overload protection, short circuit protection and open circuit protection, ensure the accessible operation of this product.

Model List

Model	Output current	Input Voltage Range (1)	Output Voltage Range	Max Output Power	Power Factor (2)	Efficiency (2)
MSPI-HDIM100W12S-2600	2600mA	277~480Vac	30~38Vdc	98.8W	0.97	88.5%
MSPI-HDIM100W12S-2500	2500mA	277~480Vac	30~38Vdc	95.0W	0.97	88.5%
MSPI-HDIM100W12S-2270	2270mA	277~480Vac	30~38Vdc	86.3W	0.97	88.5%
MSPI-HDIM100W12S-2120	2120mA	277~480Vac	30~38Vdc	80.6W	0.97	88%

Note: 1. UL and FCC Certified input voltage range: 277 ~ 480Vac

2. Default tested at 347Vac, full load, Ta 25°C

Input Specifications

Parameter	Min	Typ	Max	Remarks
AC input range	277Vac	-	480Vac	
Input frequency range	47Hz	-	63Hz	
Leakage Current	-	-	3.23mA	L, N-PE @1960Vac.
Input AC Current	-	-	0.43A	277Vac, 100% full load.
Power Factor	0.92	-	0.99	277~480Vac, 75%~100% full load.
THD	-	-	20%	277~480Vac, 75%~100% full load.

Output Specifications

Parameter		Min	Typ	Max	Remarks
Output current tolerance		-3% I _o	-	+3% I _o	
No-load Output Voltage	I _o =2600mA	-	-	47V	
	I _o =2500mA	-	-	47V	
	I _o =2270mA	-	-	47V	
	I _o =2120mA	-	-	47V	
Start-up current overshoot		-	No	-	100% full load.
Line Regulation		-	±2%	-	
Load Regulation		-	±3%	-	
Start-up time			500ms	600ms	347Vac, 75% ~ 100% full load.
		-	400ms	500ms	480Vac, 75% ~ 100% full load.
12V output line voltage		11.2 V	12 V	12.8 V	
12V output line current		-	-	40mA	

Note: All performance parameters are typical values measured at ambient temperature of 25°C, unless otherwise specified.

General Specifications

Parameter		Min	Typ	Max	Remarks
Efficiency at 277Vac	I _o =2600mA	87.5%	87.8%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2500mA	87.5%	87.8%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2270mA	87.5%	87.7%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2120mA	87.5%	87.6%	-	It is measured at ambient temperature 25 °C, 100% load.
Efficiency at 347Vac	I _o =2600mA	88%	88.3%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2500mA	88%	88.3%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2270mA	87.9%	88.3%	-	It is measured at ambient temperature 25 °C, 100% load.
	I _o =2120mA	87.8%	88.2%	-	It is measured at ambient temperature 25 °C, 100% load.
Efficiency at 380Vac	I _o =2600mA	88.2%	88.5%	-	It is measured at ambient temperature 25 °C, 100% load.

100W single Output LED Switching Power Supply

MSPI-HDIM100W12S-XXXX

Parameter		Min	Typ	Max	Remarks
Efficiency at 380Vac	Io=2500mA	88.1%	88.4%	-	It is measured at ambient temperature 25 °C , 100% load.
	Io=2270mA	88%	88.3%	-	It is measured at ambient temperature 25 °C , 100% load.
	Io=2120mA	88%	88.3%	-	It is measured at ambient temperature 25 °C , 100% load.
Efficiency at 480Vac	Io=2600mA	87.5%	88%	-	It is measured at ambient temperature 25 °C , 100% load.
	Io=2500mA	87.5%	87.9%	-	It is measured at ambient temperature 25 °C , 100% load.
	Io=2270mA	87.5%	87.9%	-	It is measured at ambient temperature 25 °C , 100% load.
	Io=2120mA	87.5%	87.8%	-	It is measured at ambient temperature 25 °C , 100% load.
No-load power consumption		-	-	0.99W	480Vac / 60Hz
Lifespan		-	50,000 Hours	-	347Vac, Case Temperature: 75°C , 100% full load.
Operating Case Temperature for Safety regulations		-40°C	-	+90°C	
Operating Case Temperature for Quality assurance		-30°C	-	+75°C	The warranty case temperature for 5 years warranty
Storage Temperature		-40°C	-	+85°C	Humidity: 10%RH to 95%RH. No condensation.
Dimensions (mm)		A:L162×W63×H41 B:L158×W64×H39			
Net Weight		-	A:630g B:590g	-	

Dimming Specifications

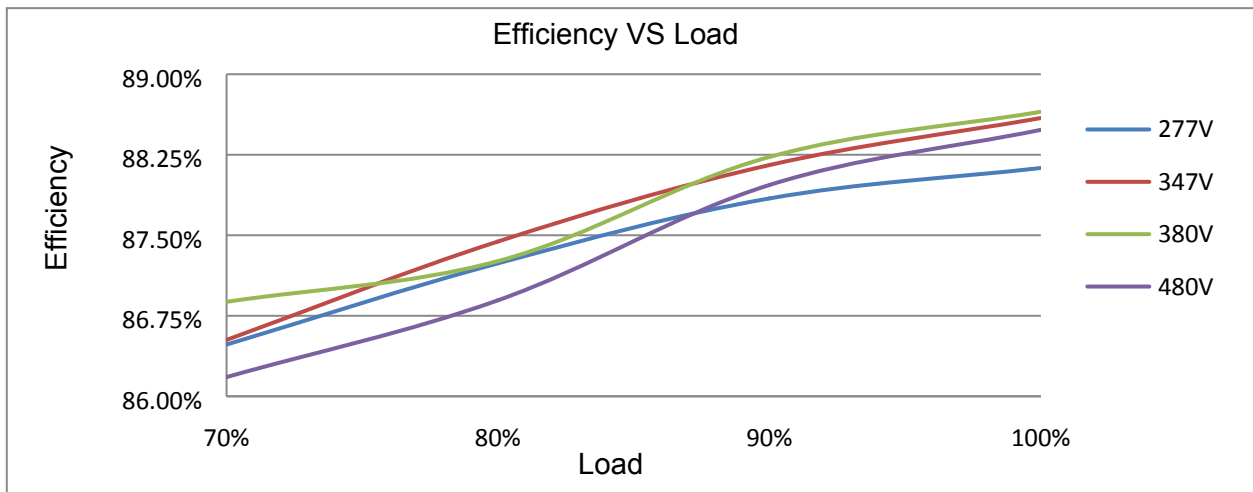
Parameter	Min	Typ	Max	Remarks
Maximum voltage on 1~10V line	0V	-	15V	
Current on 1~10V Line	0μA	200μA	250μA	
Dimming Output Range	10% Iomax	-	100% Iomax	
Recommended Dimming Input Range	1V	-	10V	

Safety & EMC Compliance

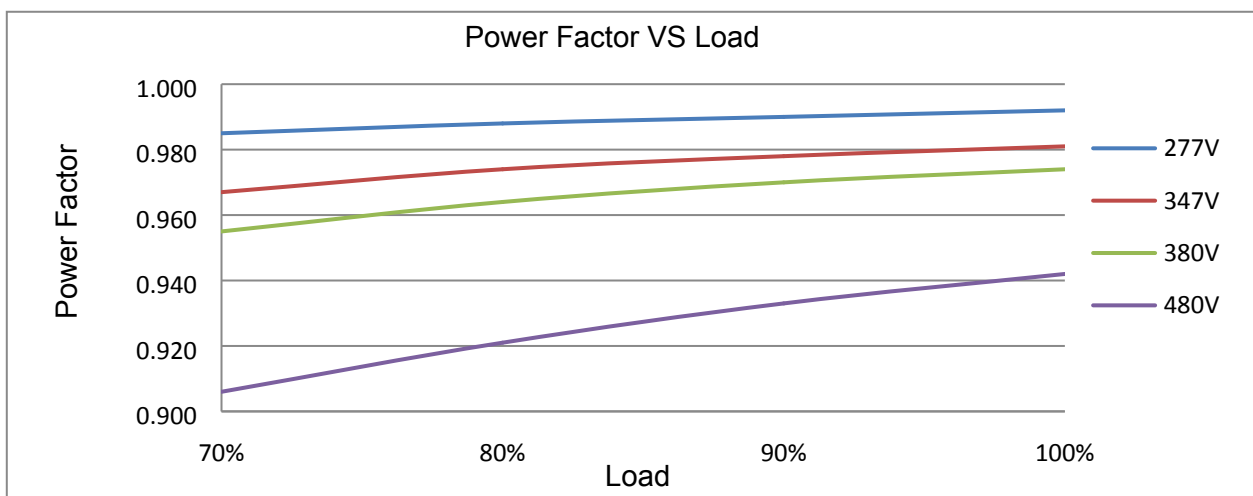
Safety Category	Standard
UL/CUL	UL 8750, Class 2.
EMI Standards	Remarks
CISPR15	Conducted Emission Test & Radiated Emission Test.
FCC Part 15	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: The power supply meets the EMI standard, but as the power supply is a part of the lamp system, EMI related confirmation shall be conducted in combination with the lamp (terminal equipment).

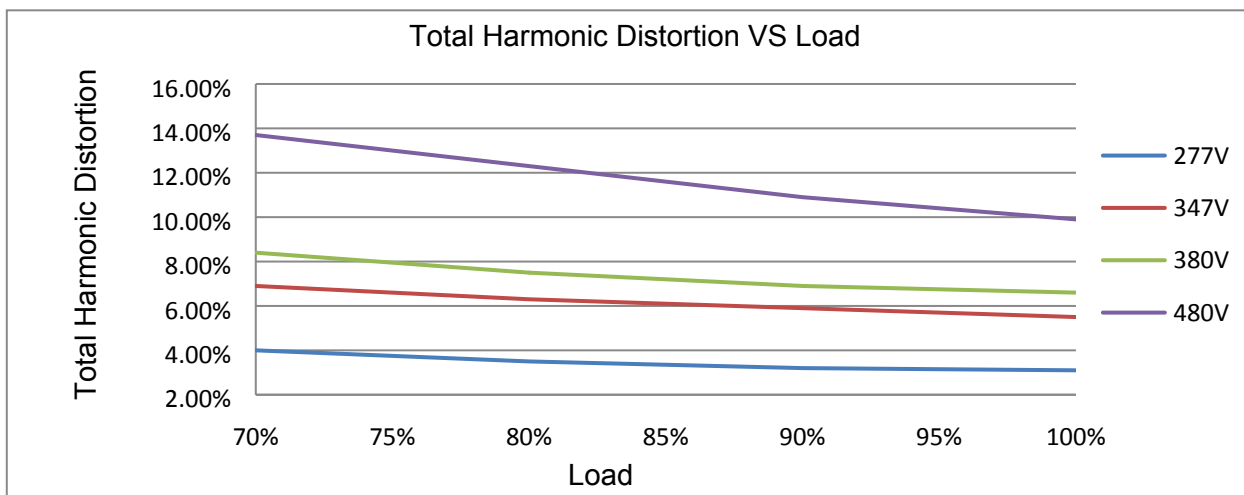
Performance Curves



Power Factor Curves

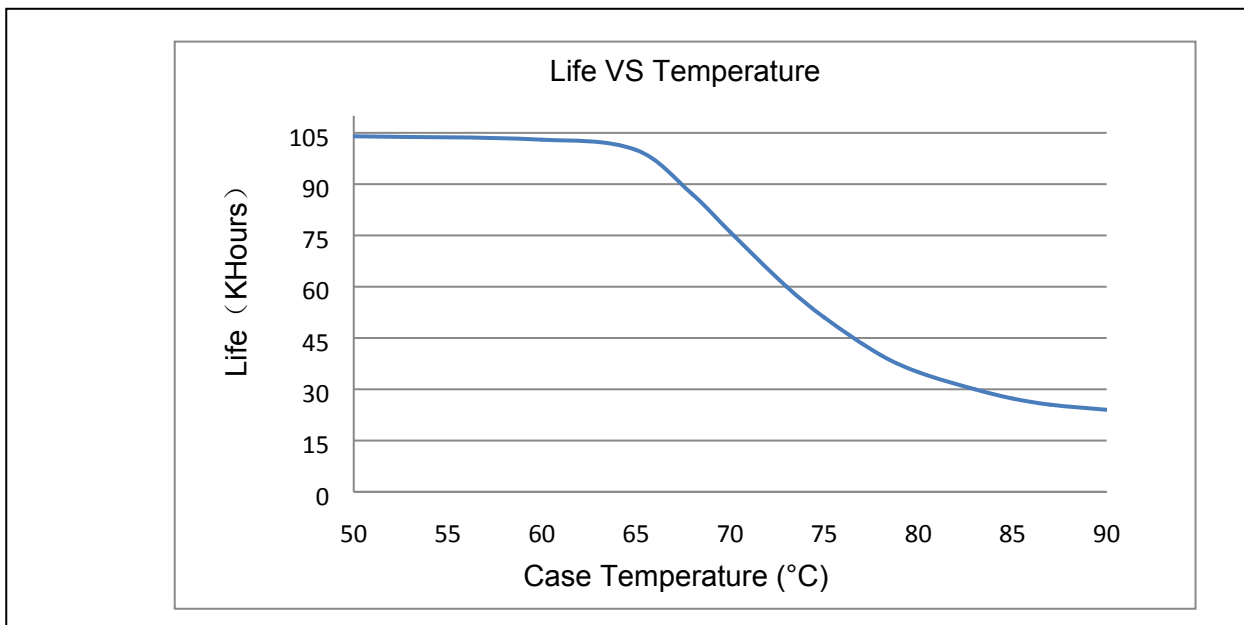


Total Harmonic Distortion Curves

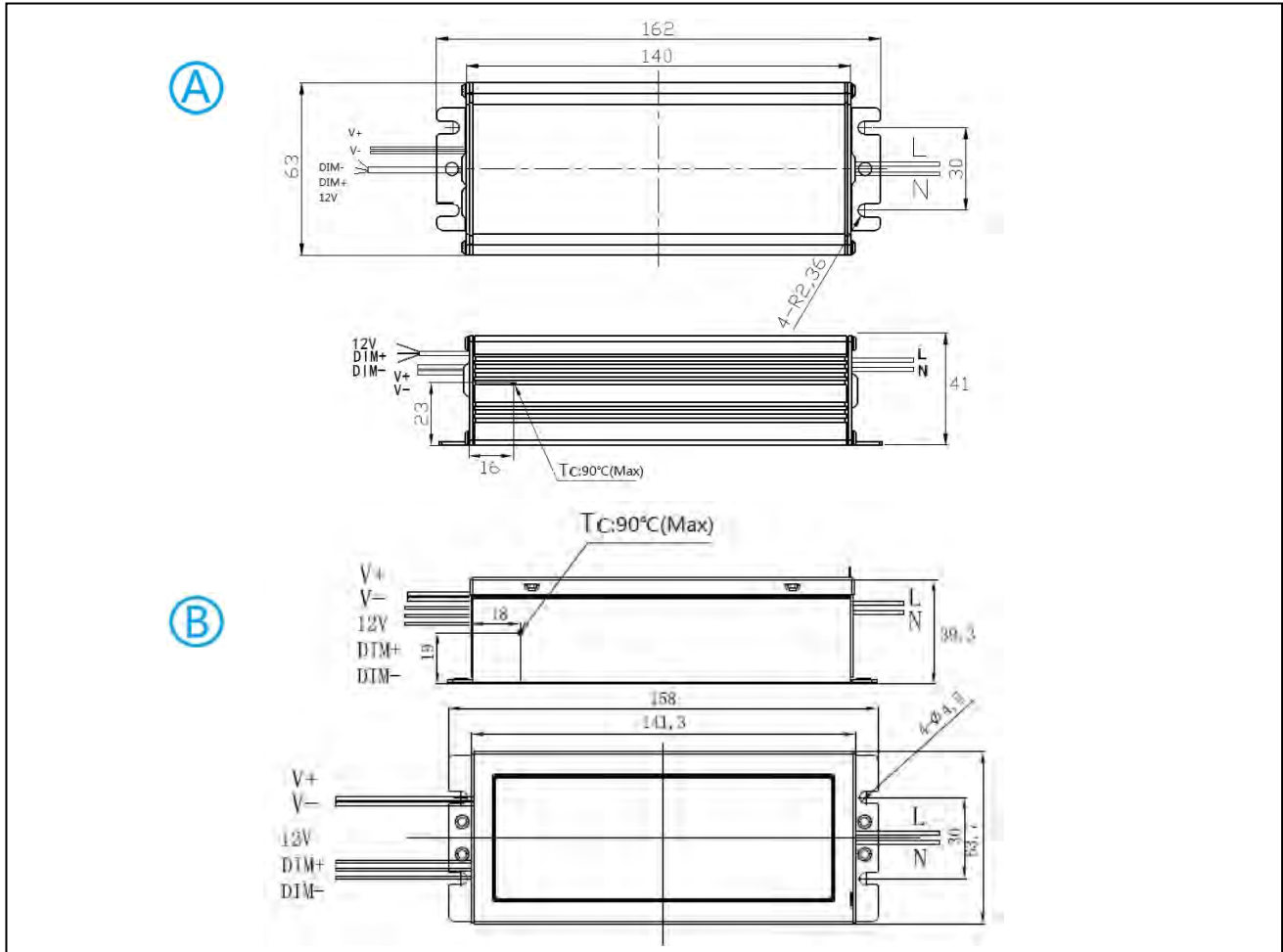


Note: The above data is derived from the MSPI-HDIM100W12S-2600 test.

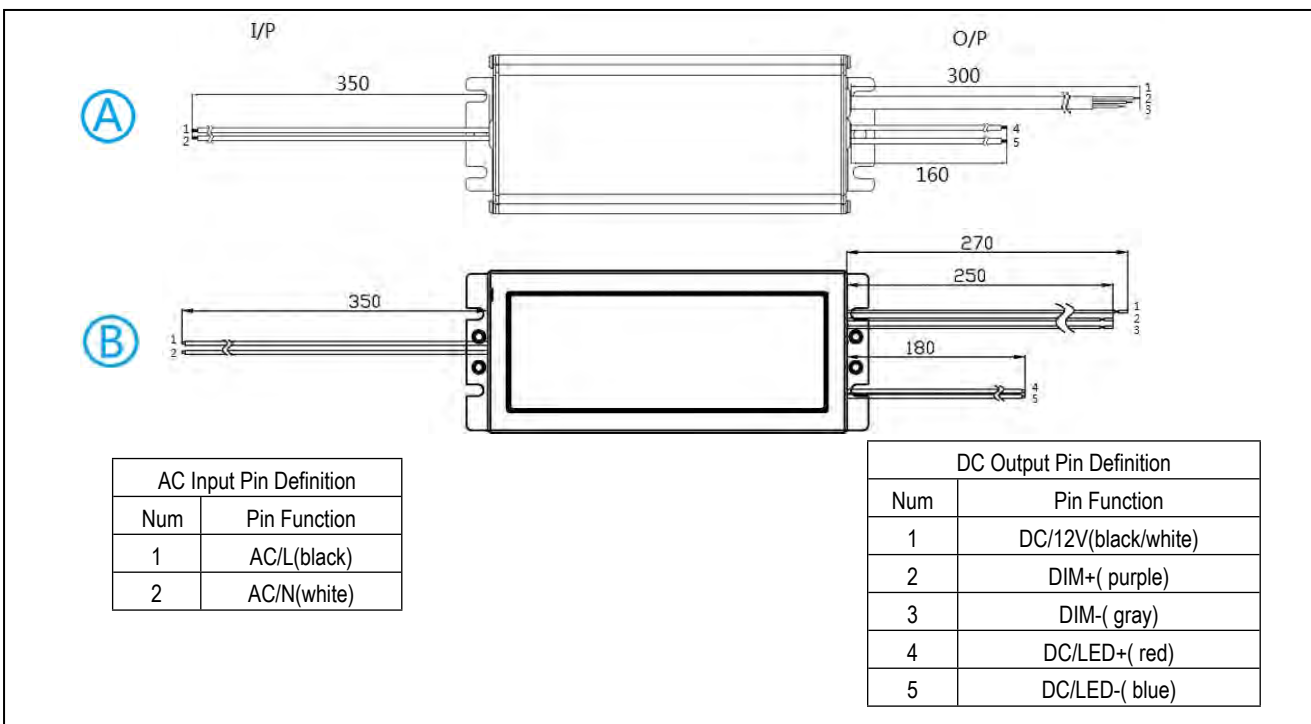
Life curve



Mechanical Dimensions (Unit: mm)



Recommended mounting direction



AC Input Pin Definition	
Num	Pin Function
1	AC/L(black)
2	AC/N(white)

DC Output Pin Definition	
Num	Pin Function
1	DC/12V(black/white)
2	DIM+(purple)
3	DIM-(gray)
4	DC/LED+(red)
5	DC/LED-(blue)

Block diagram