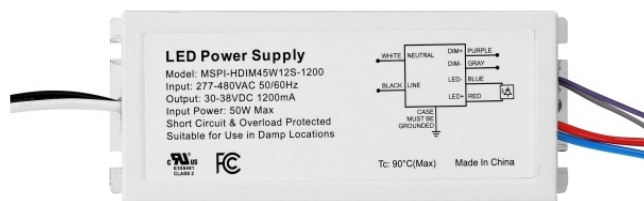


Product Features

- Constant current power supply.
- Dimming controls: 1-10Vdc, PWM or resistor.
- Input voltage range : 277 ~ 480Vac
- Active power factor > 0.9.
- High efficiency, high reliability and long lifespan.
- Protections: Overload protection, Short circuit protection and Open circuit protection.
- Surge Protection: L-N: 2kV, L/N-PE: 4kV.
- Class 2 output.



Description

The MSPI-HDIM45W12S-XXXX series input voltage ranges from 277 to 480Vac, 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-HDIM45W12S-1200	1200mA	277~480Vac	30~38Vdc	45.6W	0.97	92%
MSPI-HDIM45W12S-1020	1020mA	277~480Vac	30~38Vdc	38.76 W	0.97	91%
MSPI-HDIM45W12S-850	850mA	277~480Vac	30~38Vdc	32.3 W	0.96	90%

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

2. Default tested at 380Vac, full load, Ta 25°C.

Input Specifications

Parameter	Min	Typ.	Max	Remarks
AC input range	277Vac	-	480Vac	
Input frequency range	47Hz	-	63Hz	
Leakage Current	-	-	0.45mA	L, N-PE @1960Vac.
Input AC Current	-	-	0.21A	277Vac, 100% full load.
Power Factor	0.9	-	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% Io	-	+3% Io	
No-load Output Voltage	Io=1200mA	-	-	48Vdc	
	Io=1020mA	-	-	48Vdc	
	Io=850mA	-	-	48Vdc	
Start-up current overshoot		-	No	-	
Line Regulation		-	±2%	-	
Load Regulation		-	±3%	-	
Start-up time		-	600ms	700ms	347Vac, 75% ~ 100% full load.
		-	400ms	500ms	480Vac, 75% ~ 100% full load.

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	Io=1200mA	88.5%	89%	-	It is measured at ambient temperature 25 °C, 100% load.
	Io=1020mA	87.5%	88%	-	
	Io=850mA	87.5%	88%	-	
Efficiency at 347Vac	Io=1200mA	89.5%	90%	-	It is measured at ambient temperature 25 °C, 100% load.
	Io=1020mA	88.5%	89%	-	
	Io=850mA	88%	88.5%	-	
Efficiency at 380Vac	Io=1200mA	91%	91.5%	-	It is measured at ambient temperature 25 °C, 100% load.
	Io=1020mA	90.5%	91%	-	
	Io=850mA	89.5%	90%	-	
Efficiency at 480Vac	Io=1200mA	89.5%	90%	-	It is measured at ambient temperature 25 °C, 100% load.
	Io=1020mA	89%	89.5%	-	
	Io=850mA	89%	89.5%	-	
No-load power consumption		-	-	0.44W	480Vac / 60Hz
Lifespan		-	50,000 Hours	-	Case Temperature 75 °C, 100% full load.
Operating Case Temperature for Safety Tc_s		-40°C	-	+90°C	
Operating Case Temperature for Warranty Tc_w		-30°C	-	+75°C	The warranty case temperature for 5 years warranty
Storage Temperature		-40°C	-	+85°C	Humidity: 10%RH to 90%RH. No condensation.
Dimensions (mm)		L130 × W50 × H32			
Net Weight		-	360g	-	

Note: Case temperature testing point locates at the arrowhead.

Dimming Specifications

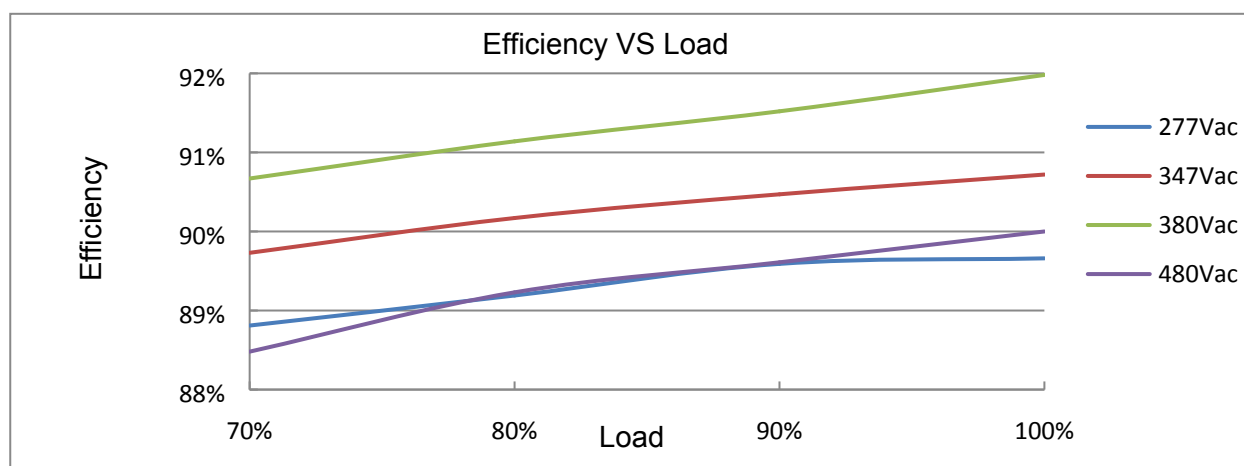
Parameter	Min	Typ.	Max	Remarks
Maximum voltage on line 1~10V	0V	-	15V	
Current on 1~10V Line	0μA	200μA	250μA	
Dimming Output Range	10%Iomax	-	100%Iomax	
Recommended Dimming Input Range	1V	-	10V	

Safety & EMC Compliance

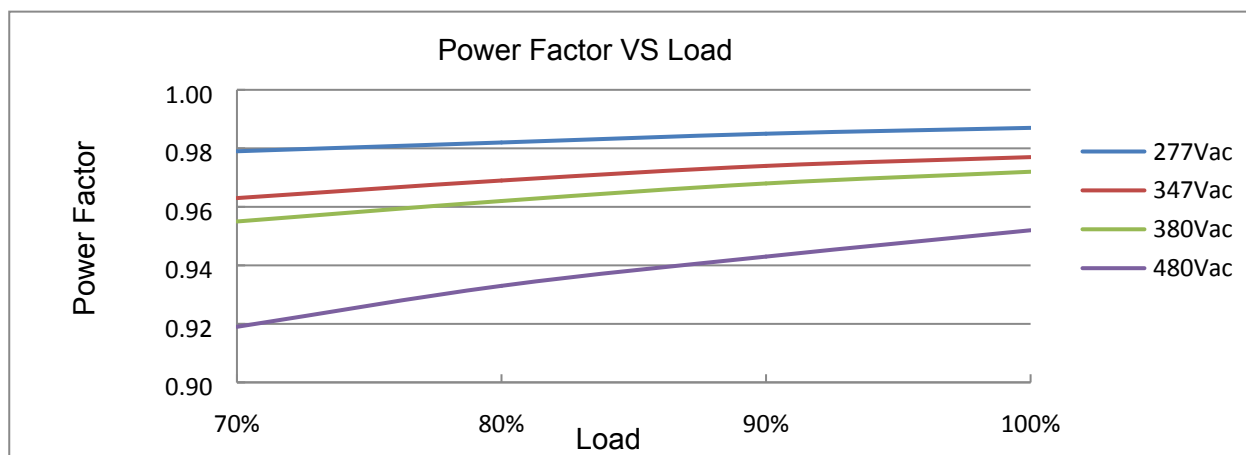
Safety Category	Standard
UL/CUL	UL 8750, Class 2.
EMI Standards	Remarks
CISPR15	Conducted Emission Test & Radiated Emission Test.
FCC Part 15	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and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

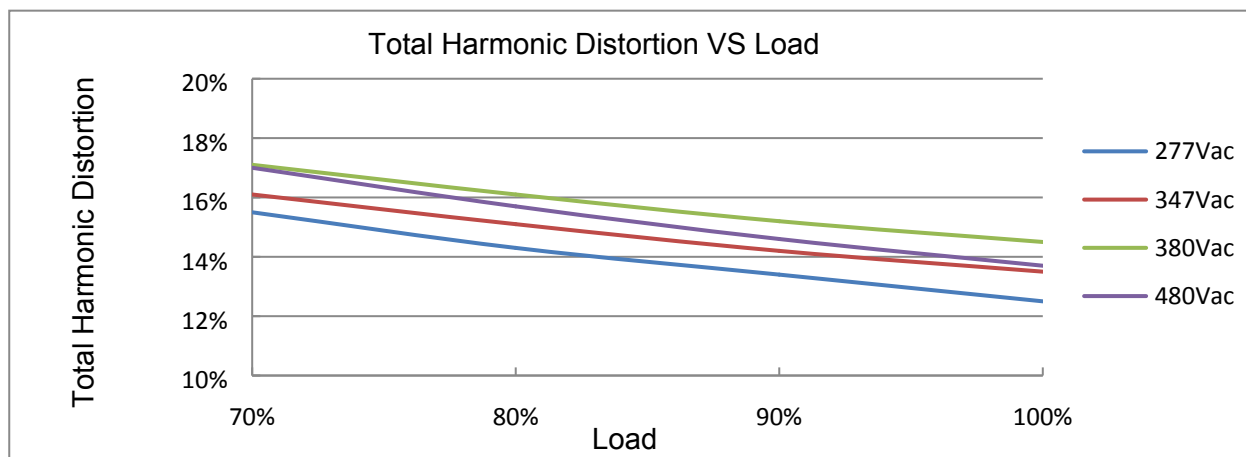
Performance Curves



Power Factor Curves

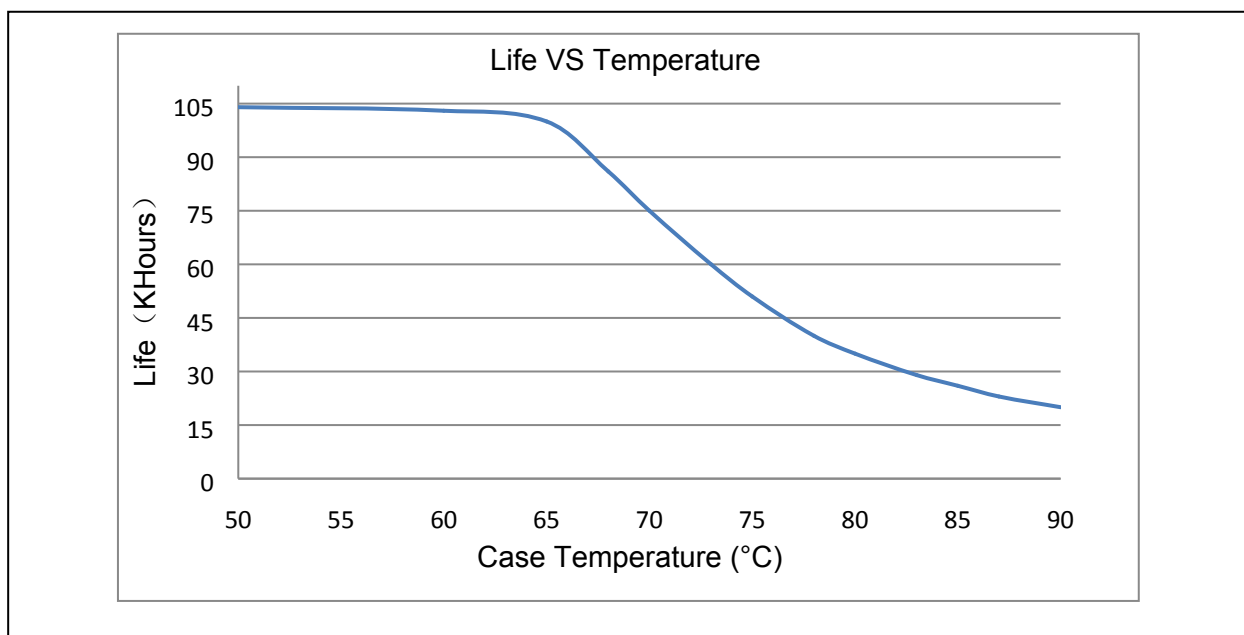


Total Harmonic Distortion Curves

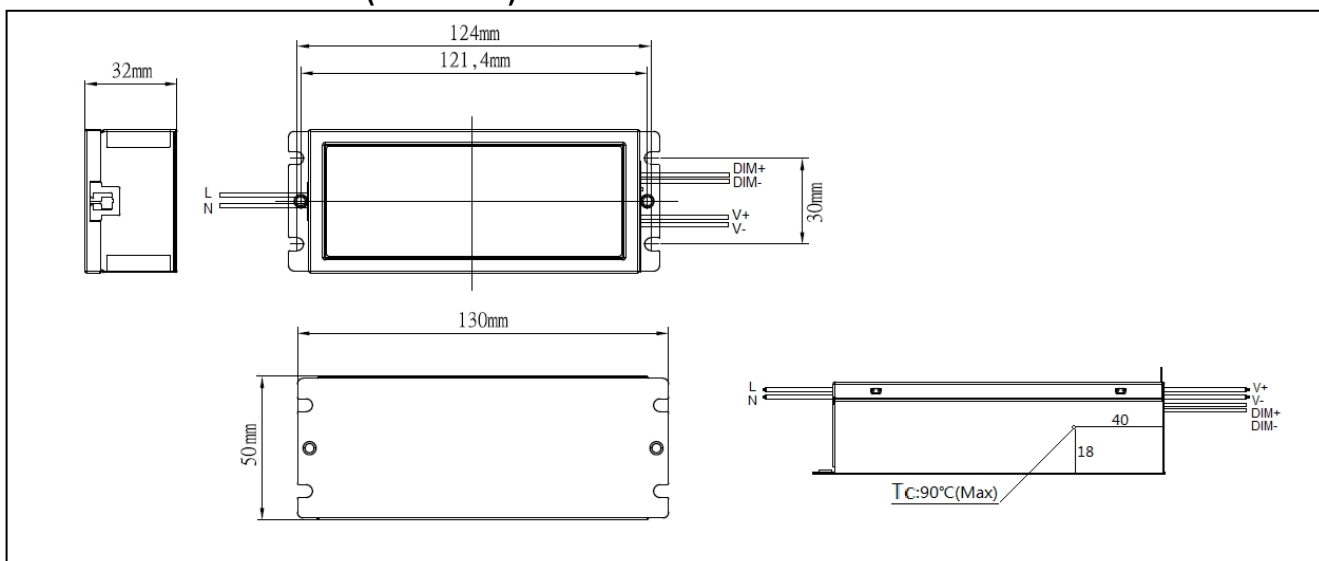


Note: The above data is derived from the MSPI-HDIM45W12S-1200 test.

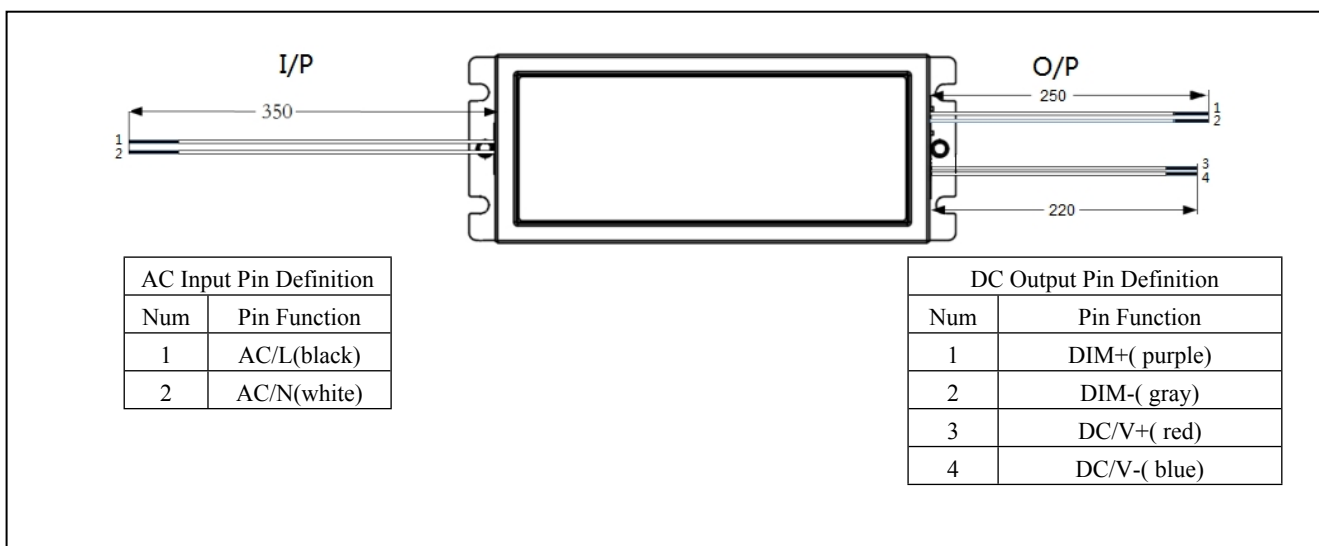
Life curve



Mechanical Dimensions (Unit: mm)



Recommended Mounting Direction



Block diagram

