

Product Features

- Built-in photocell, support 0~10V and resistance dimming, multi-power optical control parallel and dimming parallel performance
- Dimming circuit and photocell circuit are isolated from input and output, comply with the UL8750 standard
- International standard AC voltage input. (100~277V_{AC})
- Up to 88% efficiency
- Active power factor correction ,THD<20%.
- Protections: Short circuit protection and Open circuit protection.
- Surge impact immunity: L- N: 2KV.
- 5 years warranty



Description

The MSPI-NIS25W21S -XXX series input voltage ranges from 100 to 277Vac, which has the advantages of Built-in photocell, support 0~10V and resistance dimming, multi-power optical control parallel and dimming parallel performance and so on. All aspects of protection, including short circuit protection and open circuit protection, ensure the accessible operation of this product.

Model List

| Specification model | Output current | Input Voltage Range (1) | Max Output Voltage | Max Output Power | PF(2) | Efficiency (2) |
|---------------------|----------------|-------------------------|--------------------|------------------|-------|----------------|
| MSPI-NIS25W21S -430 | 430mA | 100~277Vac | 62Vdc | 26.66W | 0.97 | 88.3% |
| MSPI-NIS25W21S -420 | 420mA | 100~277Vac | 62Vdc | 26.04W | 0.96 | 88% |
| MSPI-NIS25W21S -250 | 250mA | 100~277Vac | 62Vdc | 15.5W | 0.96 | 88% |

Note: 1. UL and FCC Certified input voltage range: 100 ~ 277Vac.

2. Test conditions: 230Vac, 100% load, 25℃ ambient temperature.

Input Specification

| Parameter | Min | Typ | Max | Remarks |
|-----------------------|--------|-----|--------|---------------------------------|
| Input voltage range | 100Vac | - | 277Vac | |
| Input frequency range | 47Hz | - | 63Hz | |
| Input AC Current | - | - | 0.32A | 100Vac, 100% full load. |
| PF | 0.9 | - | 0.99 | 100~277Vac, 75%~100% full load. |
| THD | - | - | 20% | 100~277Vac, 75%~100% full load. |

Output Specification

| Parameter | | Min | Typ | Max | Remarks |
|----------------------------|-----------------------|--------------------|-------|--------------------|------------------------------|
| Output current tolerance | | -3% I _o | - | +3% I _o | |
| No-load output voltage | I _o =430mA | - | - | 75Vdc | |
| | I _o =420mA | - | - | 75Vdc | |
| | I _o =250mA | - | - | 75Vdc | |
| Start-up current overshoot | | - | No | - | |
| Line Regulation | | - | ±3% | - | |
| Load Regulation | | - | ±3% | - | |
| Start-up time | | - | 600ms | 700ms | 120Vac, 75% ~ 100% full load |
| | | - | 400ms | 500ms | 277Vac, 75% ~ 100% full load |

General Specification

| Parameter | | Min | Typ | Max | Remarks |
|--|-----------------------|-------------|--------------|-------|--|
| Efficiency @100Vac | I _o =430mA | 85.5% | 86% | - | It is measured at ambient temperature 25°C, 100% load. |
| | I _o =420mA | 86% | 86.5% | - | |
| | I _o =250mA | 86.6% | 86.8% | - | |
| Efficiency @120Vac | I _o =430mA | 87.6% | 88% | - | It is measured at ambient temperature 25°C, 100% load. |
| | I _o =420mA | 87.5% | 88% | - | |
| | I _o =250mA | 87.3% | 87.9% | - | |
| Efficiency @230Vac | I _o =430mA | 87.9% | 88.3% | - | It is measured at ambient temperature 25°C, 100% load. |
| | I _o =420mA | 87.5% | 88 % | - | |
| | I _o =250mA | 87.1% | 87.7% | - | |
| Efficiency @277Vac | I _o =430mA | 86.9% | 87.5% | - | It is measured at ambient temperature 25°C, 100% load. |
| | I _o =420mA | 86.8% | 87.5% | - | |
| | I _o =250mA | 86.9% | 87.8% | - | |
| No-load power consumption | | - | - | 0.38W | 277Vac / 60Hz |
| Lifespan | | - | 50,000 Hours | - | Case Temperature: 75°C, 100% full load. |
| Switch illumination | - | 30Lux | - | - | Turn on the light (3 minutes: delay 3S; 3 minutes later: delay 15min) |
| | - | 130Lux | - | - | Turn off the light (3 minutes: delay 3S; 3 minutes later: delay 15min) |
| Operating Case Temperature for Safety T _{c_s} | | -40°C | - | +90°C | |
| Operating Case Temperature for Warranty T _{c_w} | | -30°C | - | +75°C | Humidity: 10%RH to 90%RH; No condensation. |
| Storage Temperature | | -40°C | - | +95°C | |
| Size (mm) | | L75×W46×H30 | | | |
| Net Weight | | - | 140g | - | |

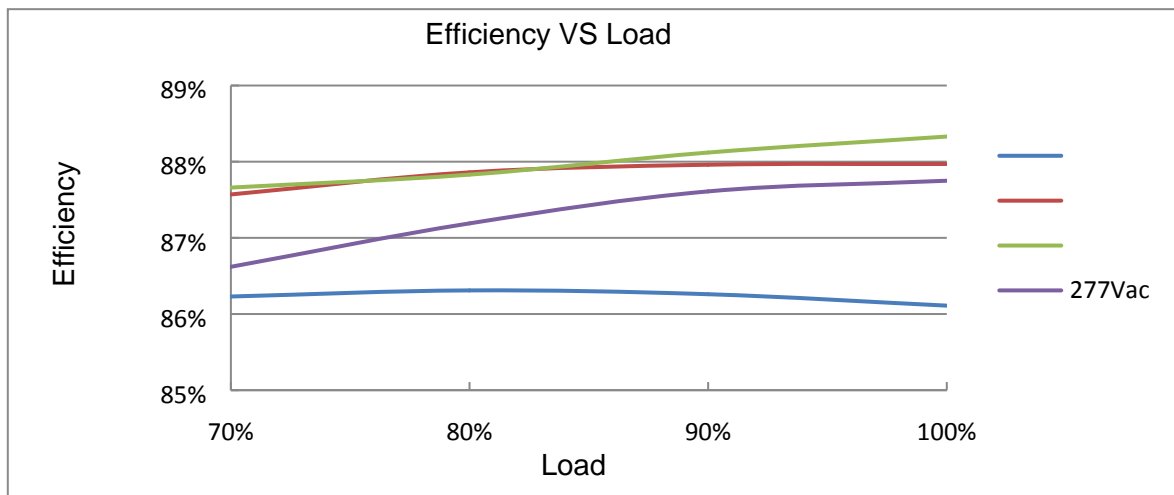
Note: Case temperature testing point location at the arrowhead.

Safety & EMI Compliance

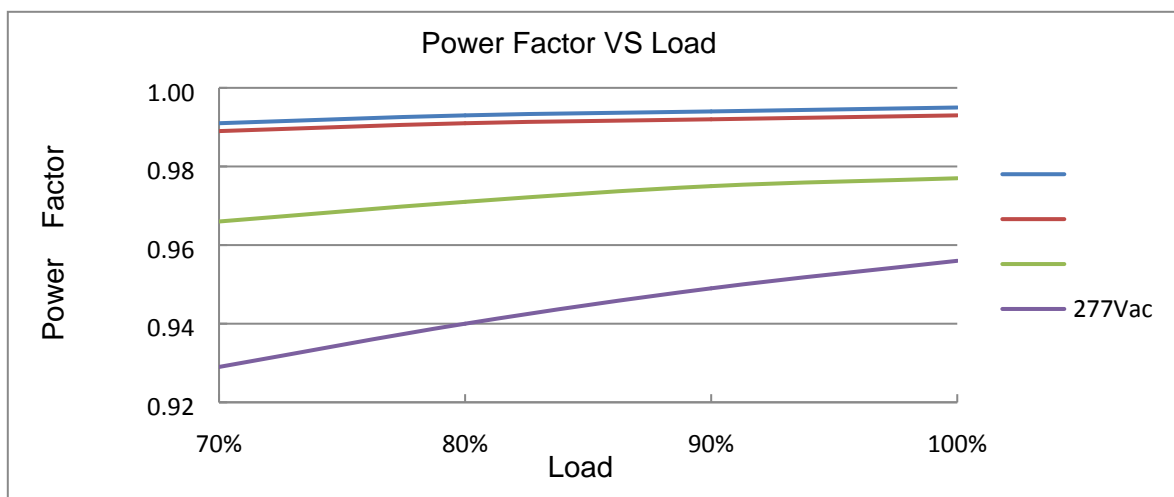
| Safety Category | Standard |
|-----------------|---|
| UL/CUL | UL 8750(photoelectric control isolation meets the UL8750 standard). |
| EMI Standards | Remarks |
| CISPR15 | Conducted Emission Test & Radiated Emission Test |
| FCC Part 15 | This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, (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).

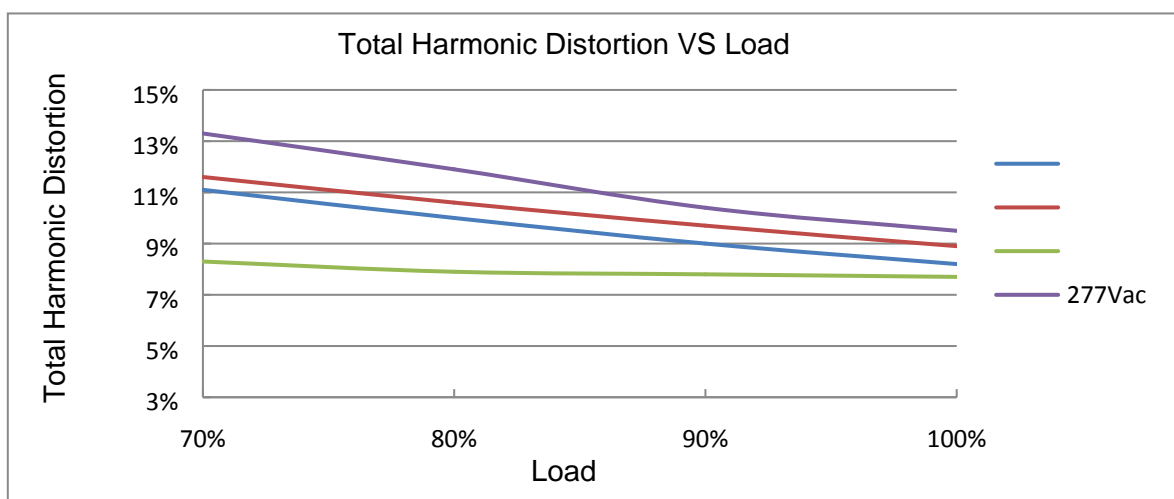
Efficiency Curve



Power Factor Curve

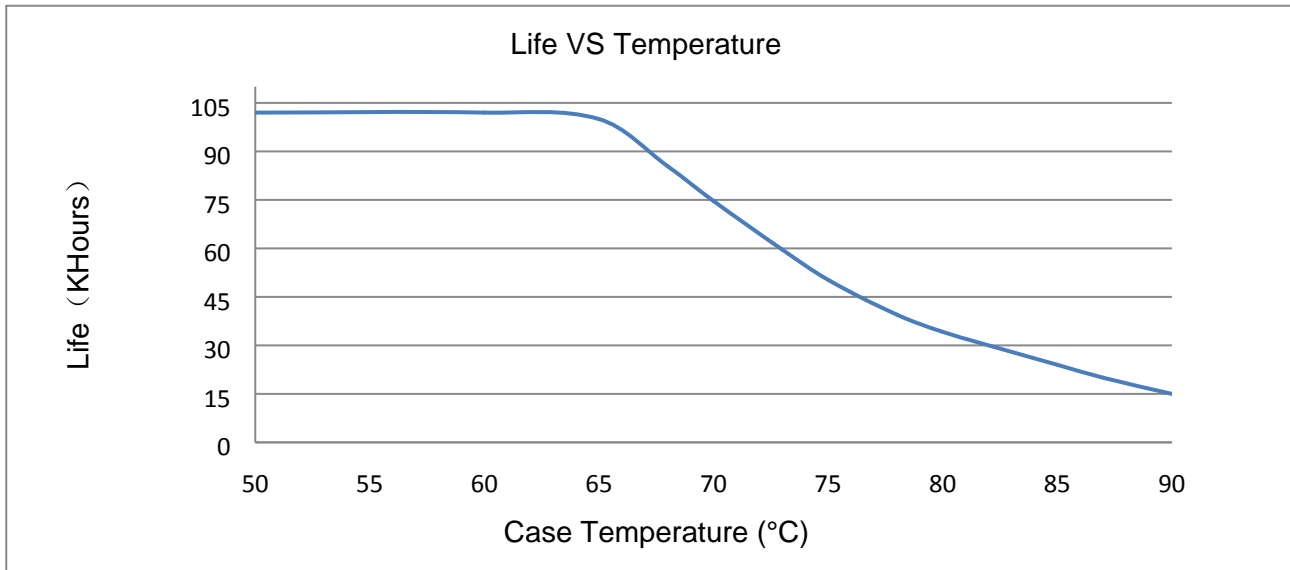


Total Harmonic Distortion Curve



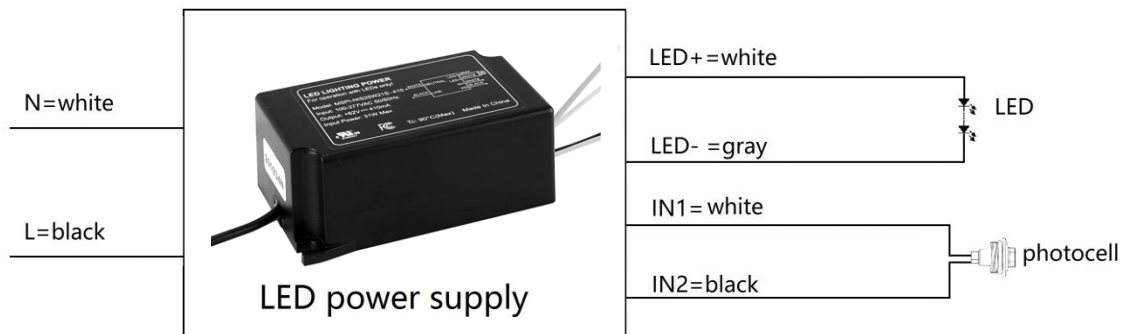
Note: The above data is derived from the MSPI-NIS25W21S -430 test.

Life curve

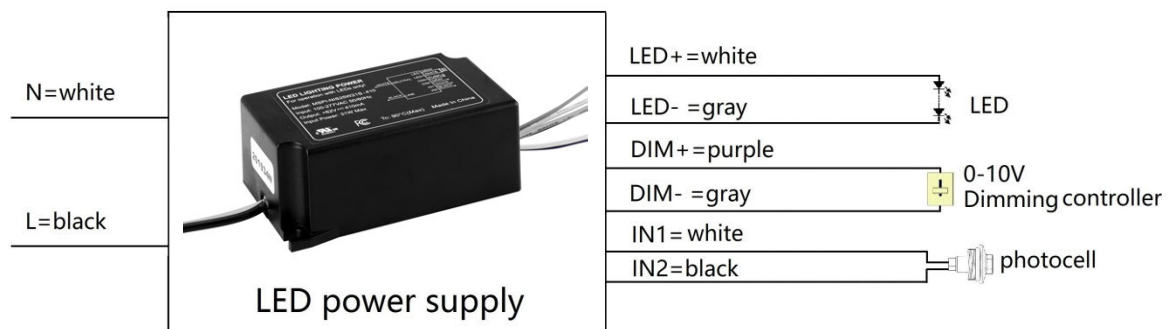


Wiring diagram

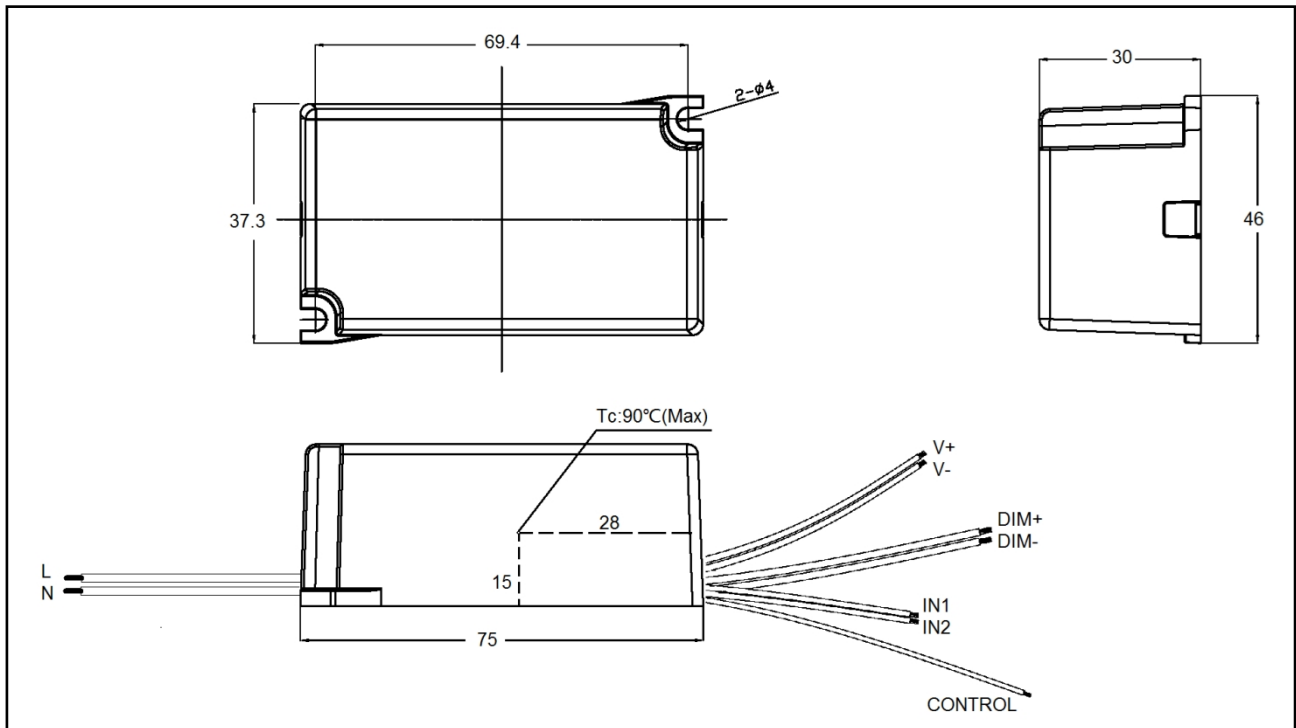
(1).The wiring diagram of the photocell function is shown below:



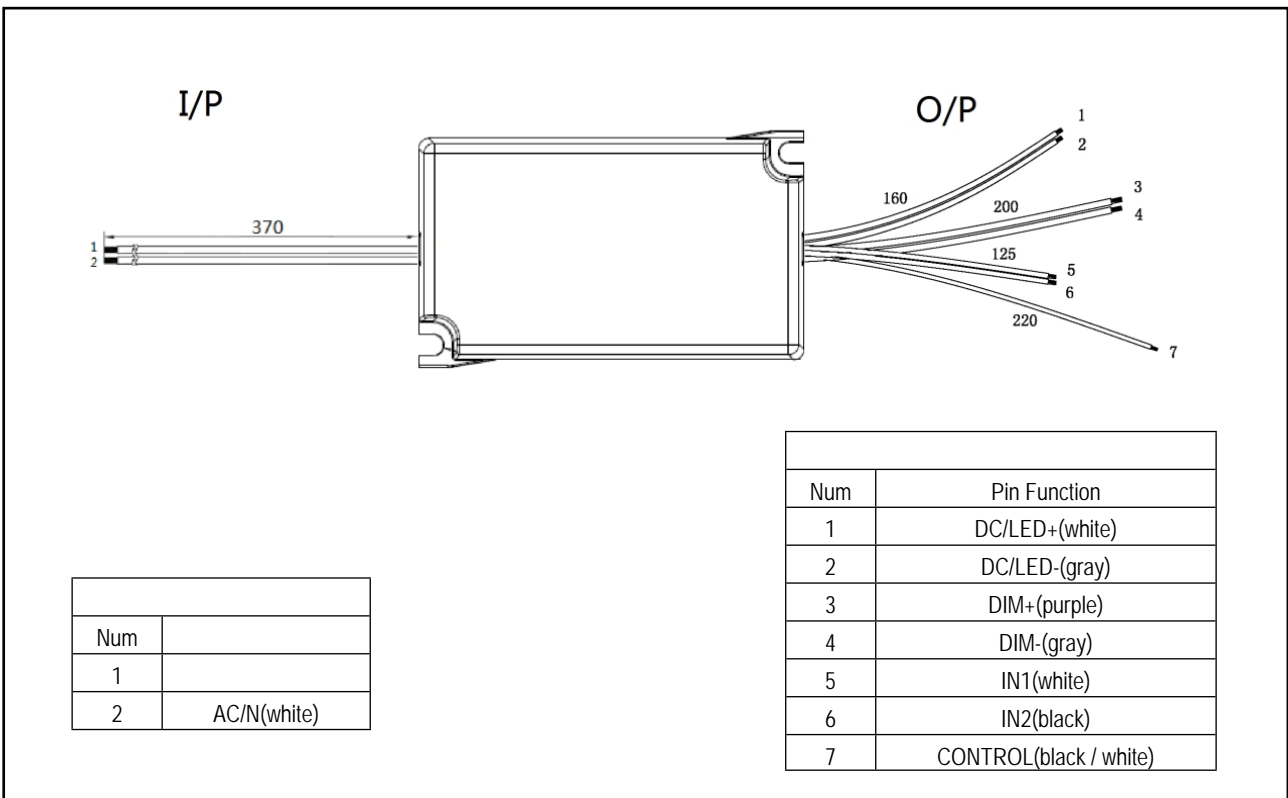
(2).The wiring diagram of the dimming and photocell functions is shown below:



Mechanical Dimensions (Unit: mm)



Recommended Mounting Direction(Unit: mm)



Block Diagram

