



崧盛电源产品使用指南
NS-V系列非隔离五合一智慧电源
SOSEN LED driver
Product User Guide
NS-V Non-isolated Series
5-in-1 Intelligent LED Driver

机型/Type: NS-V

功率/Power: 600W/900W/1200W/
1800W

版本/Version: V01

发行日期/Release Date: 2026-02-28

安装指南/Installation Guide

此文档指导客户如何可靠地安装和使用崧盛电源的NS-V系列非隔离五合一智慧电源。

This document provides guidance on the reliable installation and operation of the SOSEN NS-V Series Non-isolated 5-in-1 intelligent LED Driver.

1.NS-V系列产品概述/Overview of the NS-V series products:

该系列有宽的输入电压范围和可调节的输出电流。兼容宽输入电压范围200~480Vac，适用于多种系统的各种应用制造商,适用于室内和室外。LED灯具制造商可以轻松设计灯具并降低成本。

应用场合：

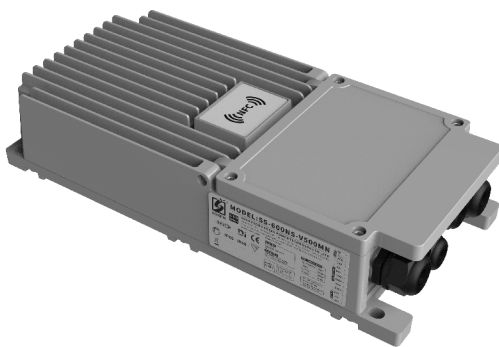
体育灯、高杆灯、舞台灯。

This series features a wide input voltage range and adjustable output current. The input voltage range is 200~480Vac, which can be applied in both indoor and outdoor. LED lighting manufacturers can easily design fixtures and reduce costs.

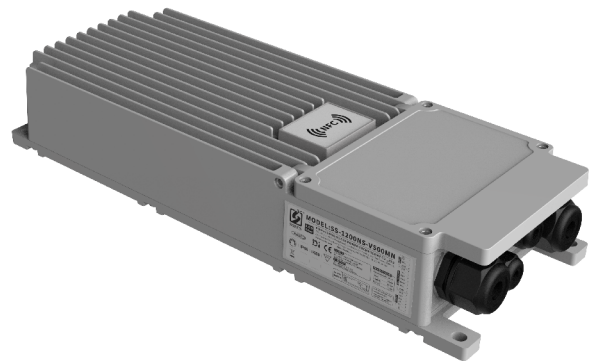
Application :

Sports light, high mast light, stage light.

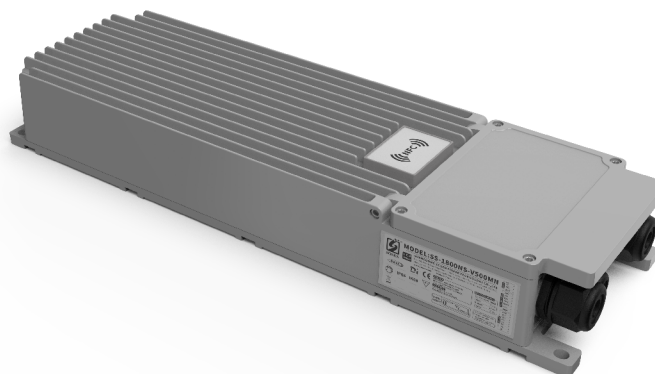
2.NS-V系列产品外观/NS-V structural appearance:



- SS-600NS-V500MN
- SS-900NS-V500MN



- SS-1200NS-V500MN



- SS-1800NS-V500MN

3.NS-V系列产品装配指南/Assembly Guide for NS-V Series Products

(在户外应用中防止水分侵入/Prevention of Moisture Ingress for Outdoor Applications)

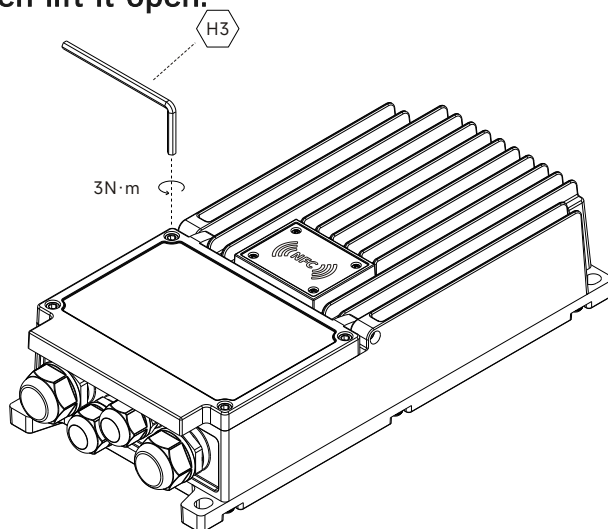
此系列LED电源适用于多种的户外应用场合，比如体育照明,高杆灯,舞台灯等。

请参考以下安装方法去防止水分或是其它物质进入。

This series of LED drivers is suitable for a wide range of outdoor applications, such as sports lighting, high-mast lighting, stage lighting, etc. Please refer to the following installation guideline to prevent the ingress of moisture or other substances.

第一步.打开接线盒面盖：用H3内六角扳手松开面盖四角的固定螺丝，上翻面盖

Step 1. Open the junction box cover: Use an H3 hex wrench to loosen its four locking screws, then lift it open.

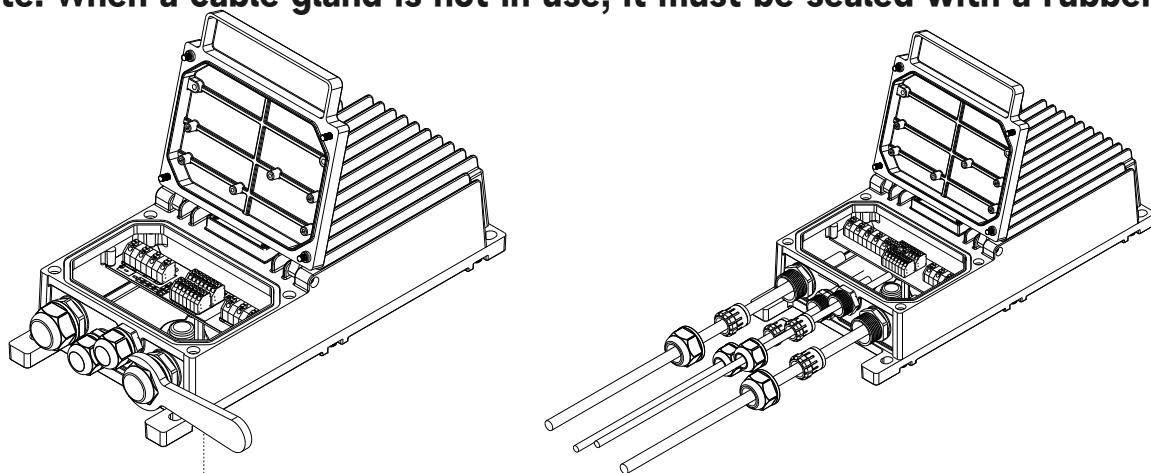


第二步. 安装线缆：拆卸掉格兰接头帽套并将其套在对应的线缆上，将对应的线缆穿过格兰接头后连接到接线端子相应位置；

注意：格兰接头闲置时，需要用胶塞堵住

Step 2. Install the cables: Remove the cap from the cable gland and slide it onto the corresponding cable. Pass the cable through the gland and connect it to the appropriate terminals on the terminal strip.

Note: When a cable gland is not in use, it must be sealed with a rubber plug.



活动扳手(Adjustable Wrench)/套筒扳手(Socket Wrench)

600NS-V、900NS-V: (M16+M20)

1200NS-V、1800NS-V: (M16+M25)

NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

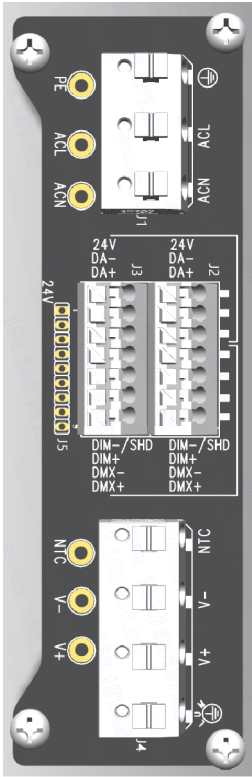
接线端子功能定义(以下图片仅供参考)

Terminal function definition(the following images are for reference only)

600NS-V/900NS-V端子功能表

序号	标识	功能
1		保护地
2	ACL	AC输入L
3	ACN	AC输入N
4	24V	24V输出线
5	DA-	DALI输入/输出-
6	DA+	DALI输入/输出+
7	DIM-(SHD)	DIM输入/输出- DMX屏蔽地
8	DIM+	DIM输入/输出+
9	DMX-	DMX输入/输出-
10	DMX+	DMX输入/输出+
11	NTC	LED热保护输入
12	V-	LED-接头
13	V+	LED+接头
14		LED模块接地保护

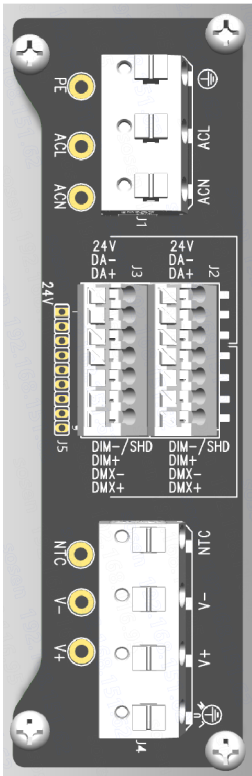
600NS-V/900NS-V
端子示意图



600NS-V/900NS-V Terminal Function Table

No.	Characteristic	Function
1		Protective Earth (PE)
2	ACL	AC Input L
3	ACN	AC Input N
4	24V	24V Output Cable
5	DA-	DALI Input/Output-
6	DA+	DALI Input/Output+
7	DIM-(SHD)	DIM Input/Output- DMX Shield Ground
8	DIM+	DIM Input/Output+
9	DMX-	DMX Input/Output-
10	DMX+	DMX Input/Output+
11	NTC	LED Thermal Protection Input
12	V-	LED- Connect
13	V+	LED+ Connect
14		LED Module Grounding Protection

600NS-V/900NS-V
Terminal Diagram



NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

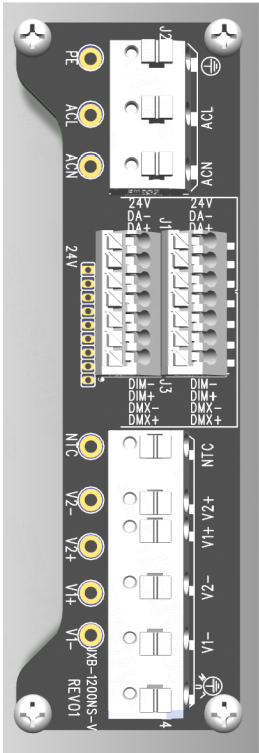
接线端子功能定义(以下图片仅供参考)

Terminal function definition(the following images are for reference only)

1200NS-V端子功能表

序号	标识	功能
1		保护地
2	ACL	AC 输入L
3	ACN	AC 输入N
4	24V	24V输出线
5	DA-	DALI输入/输出-
6	DA+	DALI输入/输出+
7	DIM-(SHD)	DIM输入/输出- DMX屏蔽地
8	DIM+	DIM输入/输出+
9	DMX-	DMX输入/输出-
10	DMX+	DMX输入/输出+
11	NTC	LED热保护输入
12	V2+	LED+ 接头
13	V1+	LED+ 接头
14	V2-	LED- 接头
15	V1-	LED- 接头
16		LED 模组接地保护

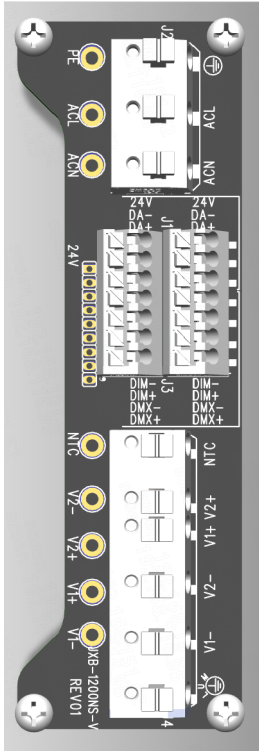
1200NS-V端子示意图



1200NS-V Terminal Function Table

No.	Characteristic	Function
1		Protective Earth (PE)
2	ACL	AC Input L
3	ACN	AC Input N
4	24V	24V Output Cable
5	DA-	DALI Input/Output-
6	DA+	DALI Input/Output+
7	DIM-(SHD)	DIM Input/Output- DMX Shield Ground
8	DIM+	DIM Input/Output+
9	DMX-	DMX Input/Output-
10	DMX+	DMX Input/Output+
11	NTC	LED Thermal Protection Input
12	V2+	LED+ Connect
13	V1+	LED+ Connect
14	V2-	LED- Connect
15	V1-	LED- Connect
16		LED Module Grounding Protection

1200NS-V
Terminal Diagram



NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

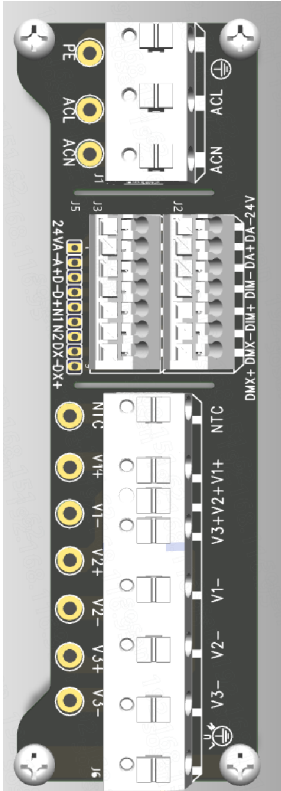
接线端子功能定义(以下图片仅供参考)

Terminal function definition(the following images are for reference only)

1800NS-V端子功能表

序号	标识	功能
1		保护地
2	ACL	AC 输入L
3	ACN	AC 输入N
4	24V	24V输出线
5	DA-	DALI输入/输出-
6	DA+	DALI输入/输出+
7	DIM-(SHD)	DIM输入/输出- DMX屏蔽地
8	DIM+	DIM输入/输出+
9	DMX-	DMX输入/输出-
10	DMX+	DMX输入/输出+
11	NTC	LED热保护输入
12	V1+	LED+ 接头
13	V2+	LED+ 接头
14	V3+	LED+ 接头
15	V1-	LED- 接头
16	V2-	LED- 接头
17	V3-	LED- 接头
18		LED 模组接地保护

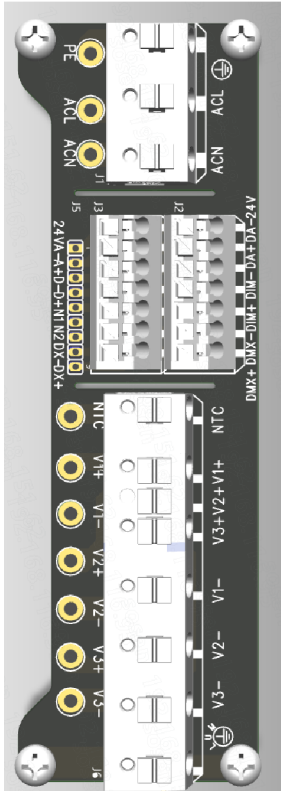
1800NS-V端子示意图



1800NS-V Terminal Function Table

No.	Characteristic	Function
1		Protective Earth (PE)
2	ACL	AC Input L
3	ACN	AC Input N
4	24V	24V Output Cable
5	DA-	DALI Input/Output-
6	DA+	DALI Input/Output+
7	DIM-(SHD)	DIM Input/Output- DMX Shield Ground
8	DIM+	DIM Input/Output+
9	DMX-	DMX Input/Output-
10	DMX+	DMX Input/Output+
11	NTC	LED Thermal Protection Input
12	V1+	LED+ Connect
13	V2+	LED+ Connect
14	V3+	LED+ Connect
15	V1-	LED- Connect
16	V2-	LED- Connect
17	V3-	LED- Connect
18		LED Module Grounding Protection

1800NS-V
Terminal Diagram

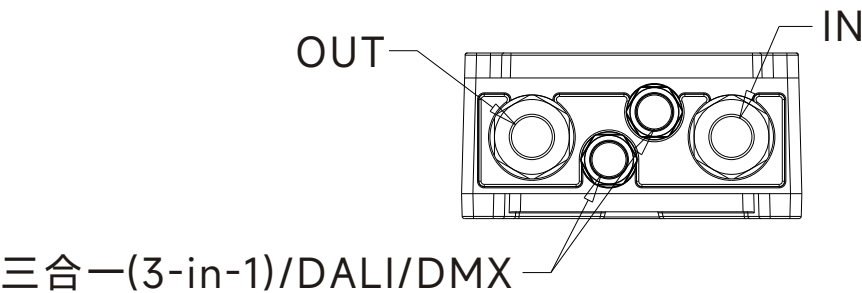


NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

格兰接头功能定义

functional definition of gland joint



功能定义 Function Definition	机型 Type	格兰接头 Cable Gland	推荐线径(mm) Recommended Wire Diameter (mm)	线号(AWG) Wire Marking (AWG)	导线截面积(mm ²) Wire Cross-Sectional Area (mm ²)	剥线长度(mm) Strand Length(mm)
Ac输入 AC Input	600NS-V/900NS-V	M20	6-11	14-17	1.0-2.5	9-10
	1200NS-V/1800NS-V	M25	13-18	14-16	1.5-2.5	
DC输出 DC Output	600NS-V/900NS-V	M20	6-11	14-17	1.0-2.5	
	1200NS-V/1800NS-V	M25	13-18	14-16	1.5-2.5	
DALI	600NS-V/900NS-V 1200NS-V/1800NS-V	M16	4.5-8.5	16-18	0.75-1.5	
DMX						
DALI级联 DALI Cascade	600NS-V/900NS-V	M16	4.5-8.5	16-18	0.75-1.5	
DMX级联 DMX Cascade	1200NS-V/1800NS-V					

注意：

1.为保证格兰接头的最佳防水等级，使用电缆线径必须严格遵守表格中的推荐值，否则防水等级下降影响电源可靠性。

2.为确保DMX信号传输的稳定可靠，请注意以下要点：DMX信号接口采用RS-485差分接口标准，其传输速率为250Kbps。需特别注意，DMX信号不支持星型拓扑结构，默认仅支持单条总线传输模式；若需从主线路分出多条支线，则必须使用支持RDM功能的信号中继器来实现。在传输介质的选择上，推荐使用超五类及以上规格带有屏蔽层的网线，或是专为485通讯设计、特征阻抗精确匹配为120Ω的带屏蔽双绞信号线，作为信号传输线材。

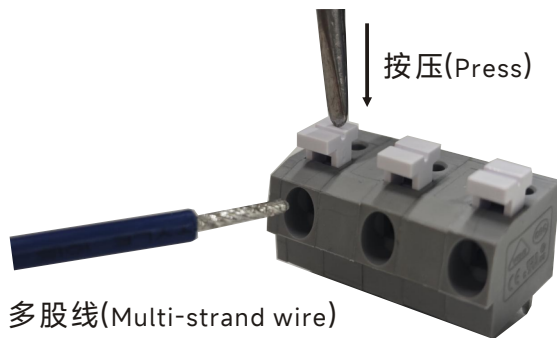
Precautions:

1.To ensure the optimal waterproof rating of the cable gland, the wire diameter must strictly comply with the recommended values in the table.Otherwise, a reduced waterproof rating may compromise the power supply's reliability.

2.To ensure stable and reliable DMX signal transmission, please note the following key points: The DMX signal is based on the RS-485 differential signal standard with a transmission rate of 250 Kbps. It is important to note that the DMX signal does not inherently support star topology and only operates in a single bus transmission mode. If branching from the main line is required, a signal repeater supporting RDM functionality must be used. For the transmission medium, it is recommended to use Cat5e or higher-grade shielded Ethernet cables, or specifically designed shielded twisted-pair signal cables with a precisely matched characteristic impedance of 120Ω for RS-485 communication.

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NS-V Series Non-isolated 5-in-1 Intelligent LED Driver



注意: 1.安装线材时,电源内部输入线材,输出线和调光线材之间的线距>6.5mm;

2.安装线材建议用多股线替代单股线——柔韧性好, 能减少装配应力风险。

Note: 1.During wire installation, make sure clearance >6.5mm between the internal input wires, output wires, and dimming wires of the LED driver.

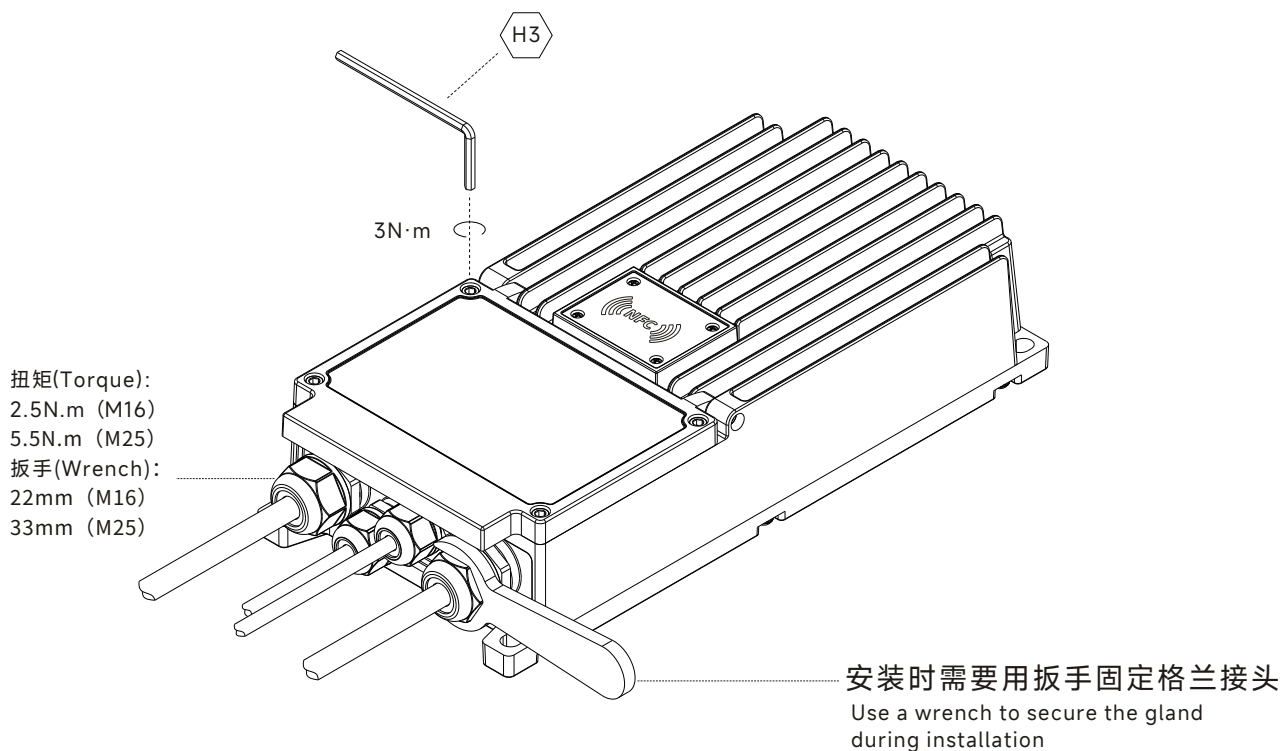
2.It is recommended to use stranded wire instead of solid wire for wire installation—this provides better flexibility and helps reduce the risk of assembly stress.

第三步. 把线材理顺塞入接线仓内, 关闭面盖, 拧紧面盖四角的螺丝, 锁紧格兰接头盖

注意: 在关闭面盖之前要确认好密封圈是否放置在正确的位置

Step 3: Neaten and insert the wires into the junction box , then close the cover, tighten the four corner screws, and finally fasten the sealing nut of the cable gland

Note: Before closing the cover, ensure that the waterproof gasket is correctly positioned



NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

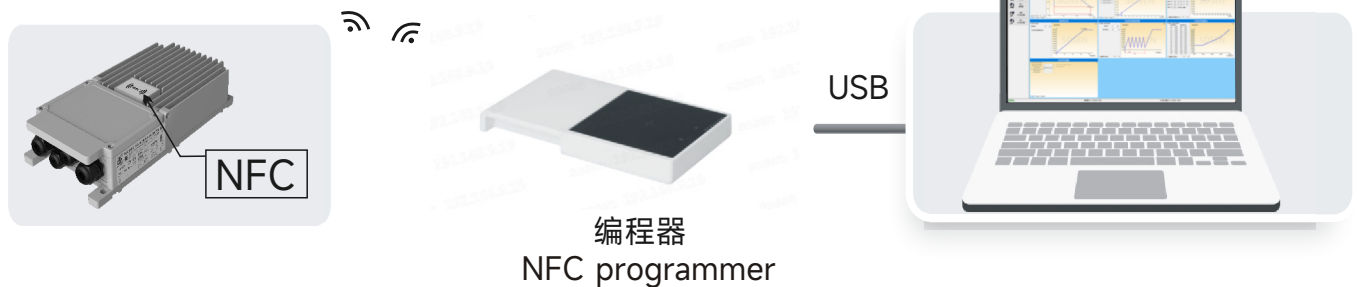
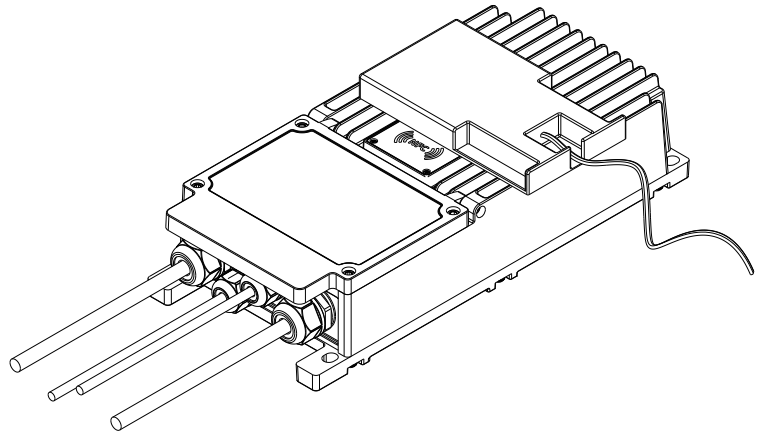
第四步. 读取数据, 调节

Step 4. NFC programming

方式一: NFC编程

Method①:NFC programming

- 1.放置编程器: 确保感应区水平居中, 与驱动器NFC感应区距离不超过3cm。
1.Position the programmer: Ensure its sensing area is horizontally centered and within 3 cm of the drive's NFC sensing area.
- 2.驱动器状态: 编程时必须断电。
2.Driver power status: The drive must be powered off during programming.
- 3.编程过程: 保持编程器稳定接触, 直到软件提示编程完成再移开。
3.Programming procedure: Maintain stable contact between the programmer and the drive until the software indicates that programming is complete. The programmer may then be removed.



方式二: 有线编程

Method②:Wired programming

- 1.连接编程器: 使用USB线将编程器连接至计算机, 并将编程器的通信线缆与目标LED电源的对应接口进行连接, 具体接线方式如下:
编程器紫色线 (DATA+) 连接至LED电源的DA+端口;
编程器粉色线 (DATA-) 连接至LED电源的DA-端口;
编程器黑白线 (Dimvcc) 无需连接, 保持悬空状态。
1.Connecting the Programmer: Connect the programmer to the computer using a USB cable, and then establish communication between the programmer and the target LED driver by connecting the communication cables to the corresponding terminals as specified below:
The purple wire (DATA+) of the programmer shall be connected to the DA+ terminal of the LED driver.
The pink wire (DATA-) of the programmer shall be connected to the DA- terminal of the LED driver.
The black-and-white wire (Dimvcc) of the programmer shall remain unconnected (NC).
- 2.烧录要求: 在进行程序烧录时, 必须确保LED电源处于通电状态。仅当LED电源正常供电时, 编程器方能完整识别并执行全部编程功能。
烧录过程中, 编程器的“RUN”指示灯将闪烁, 须待烧录完成后, 方可断开连接。
2.Programming Requirements: During the programming process, it is essential to ensure that the LED driver remains powered on. Only when the LED driver is properly energized can the programmer fully recognize and execute all programming functions. Throughout the programming procedure, the "RUN" indicator on the programmer will flash; the connection must not be disconnected until the programming process is completed.

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3、离线一键编程流程：离线一键编程功能支持在脱离计算机的情况下，将程序写入目标LED驱动器中。操作须严格按照以下步骤执行：

步骤一：程序预加载，通过Sosen软件，将经调试确认的最终程序写入编程器设备。

步骤二：为编程器提供独立电源，编程器须连接至独立的5V 1A USB电源（如移动电源或标准USB电源适配器）。

步骤三：建立通信连接，将编程器的通信线缆与目标LED驱动器的对应端口正确连接。

步骤四：为目标设备供电，为待编程的LED驱动器接通交流电源。

步骤五：启动编程，确认上述各步骤已正确完成后，手动按压编程器上的“P”键。此时，编程器的状态指示灯开始闪烁；待指示灯停止闪烁，表示编程过程已结束，即可安全断开通信连接。

注意事项：编程器须独立供电，LED驱动器须保持通电状态；编程过程中严禁断开任何连接。

3.Offline One-Key Programming Procedure:The offline one-key programming function enables the program to be written into the target LED driver without requiring a connection to a computer. The operation must be carried out strictly in accordance with the following steps:

Step 1: Preloading the Program Using the Sosen software, write the finalized program (after debugging and confirmation) into the programming device.

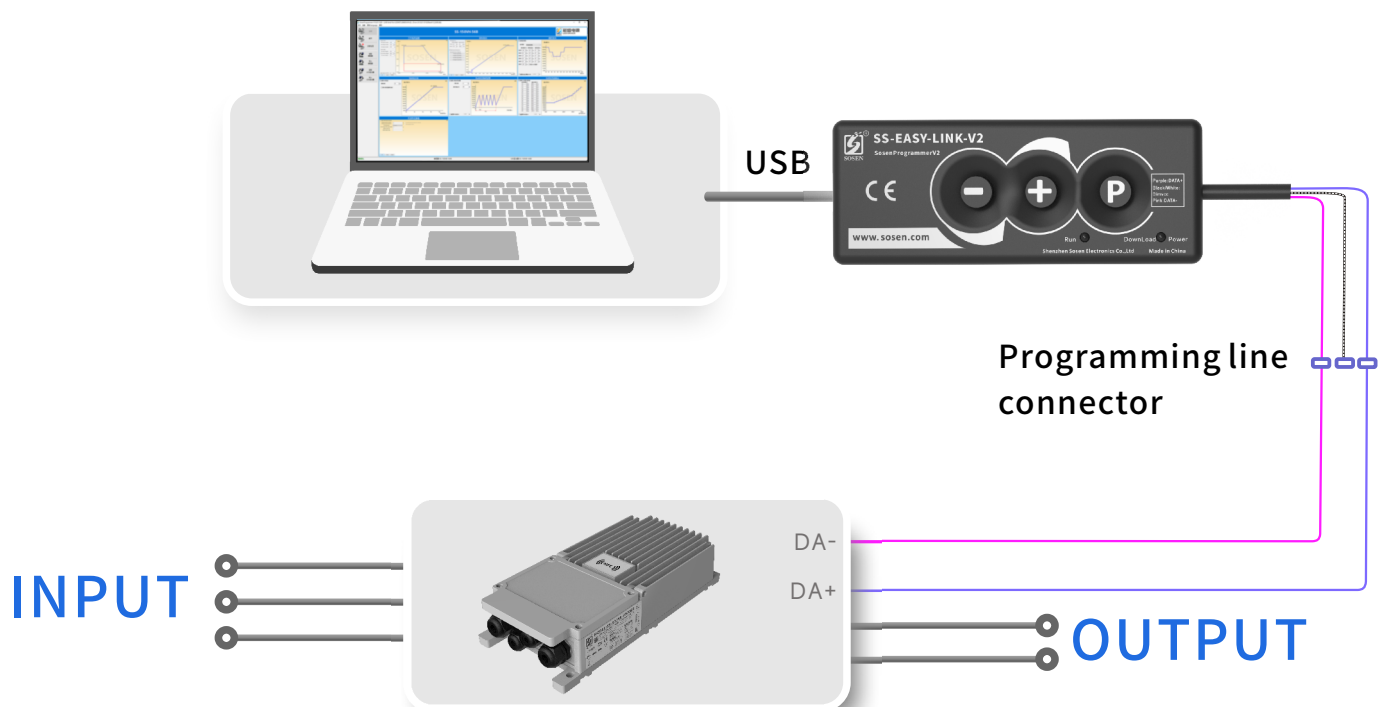
Step 2: Providing an Independent Power Supply for the Programmer The programmer must be connected to an independent 5V 1A USB power source (e.g., a power bank or a standard USB power adapter).

Step 3: Establishing Communication Connection Properly connect the communication cable of the programmer to the corresponding terminals of the target LED driver.

Step 4: Power On the Target Device: Apply AC power to the LED driver.

Step 5: Initiating Programming After verifying that all the above steps have been correctly executed, manually press the "P" button on the programmer. At this point, the status indicator light on the programmer will begin to flash. Once the light stops flashing, indicating that the programming process is complete, the communication connection may be safely disconnected.

Precautions: during the read/write programming process, the programmer must be powered by an indepent 5V power supply , the LED driver must always be AC power on, it is forbidden to disconnect any connections

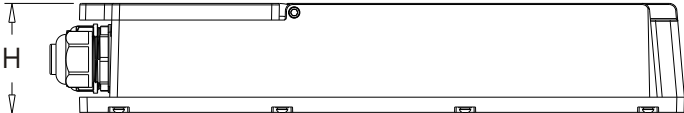
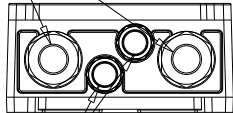


4.安装注意事项/Installation Notes:

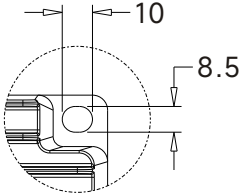
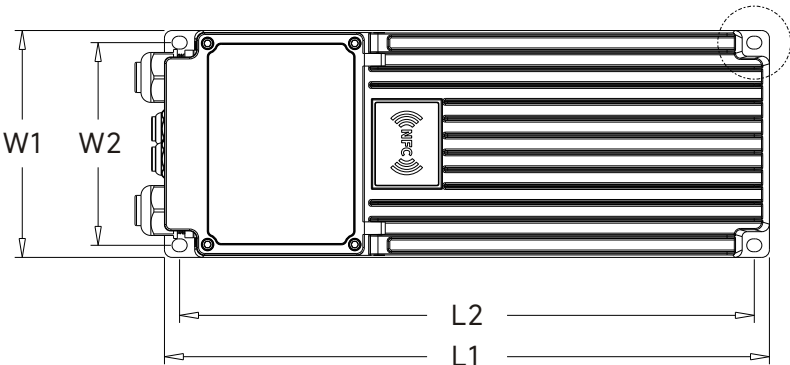
1. 驱动器固定孔尺寸:

1. Driver Mounting Hole Dimensions:

M25 格兰接头(M25 Cable Gland)
(1200NS-V\1800NS-V)
M20 格兰接头(M20 Cable Gland)
(600NS-V\900NS-V)



M16 格兰接头(M16 Cable Gland)



	600NS-V500MN	900NS-V500MN	1200NS-V500MN	1800NS-V500MN
L1	310mm	310mm	400mm	500mm
L2	291.5mm	291.5mm	380mm	480mm
W1	145mm	145mm	150mm	150mm
W2	129mm	129mm	134mm	134mm
H	67mm	67mm	73mm	73mm

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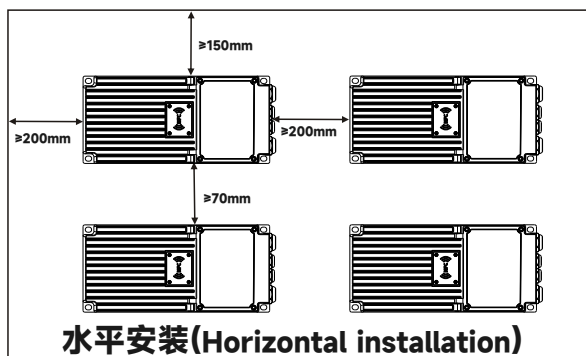
2. 机柜内安装:

2. Cabinet installation:

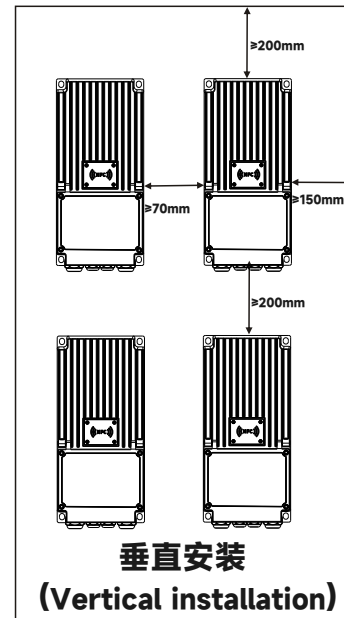
可选择水平安装或者垂直安装，建议此LED驱动器与侧壁之间以及驱动器之间的安装距离如图所示，建议在实际安装和使用条件下进行热测试，并确保其外壳温度低于80℃的质保壳温。建议选择高反射率的涂漆机柜外壳，以减少光照辐射热。

The LED driver can be installed either horizontally or vertically. It is recommended to maintain the installation clearance between the drive and the side wall, as well as between multiple drives, as shown in the provided diagram. Thermal testing under actual installation and operating conditions is advised to ensure the case temperature remains below the warranty-rated limit of 80°C.

It is further recommended to use an enclosure with a high-reflectivity painted interior to minimize radiant heat exposure.



水平安装(Horizontal installation)



垂直安装
(Vertical installation)

3. 户外裸露安装:

3.Outdoor exposed installation:

在户外裸露建议安装方式:

- 散热鳍片须朝上或呈水平朝向;
- 须确保接线盒的安装高度低于散热鳍片。

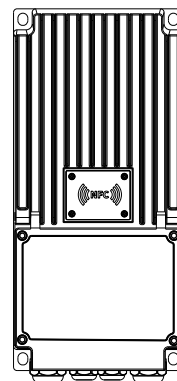
此安装方法在户外环境下可以更好散热

Recommended Installation Method for Outdoor Exposed Mounting:

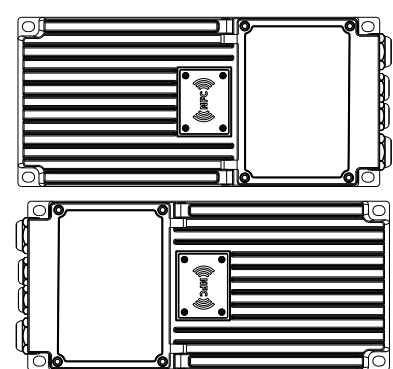
The heat sink fins must face upward or be oriented horizontally.

The junction box must be installed at a lower height than the heat sink fins. This mounting method enhances heat dissipation in outdoor environments

垂直朝上安装
Vertically Upright Mounting

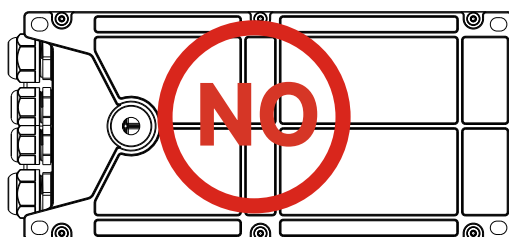


水平安装
Mounted Horizontally



注意！户外裸露安装使用时，以下的安装方式是不推荐的

Note: The following installation method is not recommended for outdoor use.



底面朝上安装

Install with the bottom surface facing up



格兰接头开口朝上安装

Cable gland openings face upward during installation

5.MCB配置/MCB configuration:

SS-600NS-V500MN			SS-900NS-V500MN		
MCB型号 MCB model	@220VAC/ 25°C	@480VAC/ 25°C	MCB型号 MCB model	@220VAC/ 25°C	@480VAC/ 25°C
MCB A TYP 10A	1	0	MCB A TYP 10A	1	0
MCB A TYP 13A	1	0	MCB A TYP 13A	1	0
MCB A TYP 16A	1	0	MCB A TYP 16A	1	0
MCB A TYP 20A	2	0	MCB A TYP 20A	2	0
MCB B TYP 10A	1	0	MCB B TYP 10A	1	0
MCB B TYP 13A	1	0	MCB B TYP 13A	1	0
MCB B TYP 16A	2	1	MCB B TYP 16A	2	1
MCB B TYP 20A	3	1	MCB B TYP 20A	3	1
MCB B TYP 25A	3	1	MCB B TYP 25A	3	1
MCB B TYP 32A	4	2	MCB B TYP 32A	4	2
MCB C TYP 6A	1	0	MCB C TYP 6A	1	0
MCB C TYP 10A	2	1	MCB C TYP 10A	1	1
MCB C TYP 13A	3	1	MCB C TYP 13A	2	1
MCB C TYP 16A	4	1	MCB C TYP 16A	2	1
MCB C TYP 20A	5	2	MCB C TYP 20A	3	2
MCB C TYP 25A	6	2	MCB C TYP 25A	4	2
MCB C TYP 32A	8	3	MCB C TYP 32A	5	3
MCB D TYP 6A	1	1	MCB D TYP 6A	1	1
MCB D TYP 10A	2	2	MCB D TYP 10A	1	2
MCB D TYP 13A	3	2	MCB D TYP 13A	2	2
MCB D TYP 16A	4	3	MCB D TYP 16A	2	3
MCB D TYP 20A	5	4	MCB D TYP 20A	3	4
MCB D TYP 32A	8	7	MCB D TYP 32A	5	7

5.MCB配置/MCB configuration:

SS-1200NS-V500MN			SS-1800NS-V500MN		
MCB型号 MCB model	@220VAC/ 25°C	@480VAC/ 25°C	MCB型号 MCB model	@220VAC/ 25°C	@480VAC/ 25°C
MCB A TYP 10A	1	0	MCB A TYP 10A	0	0
MCB A TYP 13A	1	0	MCB A TYP 13A	0	0
MCB A TYP 16A	1	0	MCB A TYP 16A	0	0
MCB A TYP 20A	2	0	MCB A TYP 20A	1	0
MCB B TYP 10A	1	0	MCB B TYP 10A	0	0
MCB B TYP 13A	1	0	MCB B TYP 13A	1	0
MCB B TYP 16A	2	1	MCB B TYP 16A	1	0
MCB B TYP 20A	2	1	MCB B TYP 20A	1	1
MCB B TYP 25A	3	1	MCB B TYP 25A	2	1
MCB B TYP 32A	4	2	MCB B TYP 32A	2	1
MCB C TYP 6A	0	0	MCB C TYP 6A	0	0
MCB C TYP 10A	1	1	MCB C TYP 10A	0	0
MCB C TYP 13A	1	1	MCB C TYP 13A	1	1
MCB C TYP 16A	2	1	MCB C TYP 16A	1	1
MCB C TYP 20A	2	2	MCB C TYP 20A	1	1
MCB C TYP 25A	3	2	MCB C TYP 25A	2	2
MCB C TYP 32A	4	3	MCB C TYP 32A	2	2
MCB D TYP 6A	0	1	MCB D TYP 6A	0	1
MCB D TYP 10A	1	2	MCB D TYP 10A	0	1
MCB D TYP 13A	1	2	MCB D TYP 13A	1	2
MCB D TYP 16A	2	3	MCB D TYP 16A	1	2
MCB D TYP 20A	2	4	MCB D TYP 20A	1	3
MCB D TYP 32A	4	7	MCB D TYP 32A	2	5

6.其他注意事项/Other precautions:

其它注意事项请参阅标准安装手册和数据表，安装将由合格的电工执行，并且只能在没有给LED驱动器通电的情况下进行操作，为防止输出触电风险，建议驱动器断电120S后进行操作及安装。

For other precautions, please refer to the standard installation manual and datasheet. Installation must be performed by a qualified electrician and should only be carried out when the LED driver is not powered on. To prevent the risk of output electric shock, it is recommended to operate and install the driver only after it has been powered off for 120 seconds

NS-V系列非隔离五合一智慧电源

NS-V Series Non-isolated 5-in-1 Intelligent LED Driver

变更履历表/Change History

版 本 Version	变更内容描述 Description of Changes	变更日期 Revision Date	备 注 Remarks
V00	初次发行/Initial Release	2026/02/08	
V01	修订文件内容为中英双语/The document's content has been revised to incorporate both Chinese and English versions.	2026/02/28	