



# SPECIFICATIONS

## SS-100CNH-G300

### CC DRIVER

Model: SS-100CNH-G300

Power: 100W

Rev.: V00

Release date: 2025-07-10



# SS-100CNH-G300 LED DRIVER

## Features

- Efficiency up to 96%
- Protections: SCP/OTP/OVP/UVP
- IP65
- Surge protection: CM: 6kV,DM: 6kV
- Long lifetime
- Warranty: 5 years



IP65

Description

SS-100CNH-G300 is 100W round non-isolated constant current LED driver. This product has the advantages of super high efficiency, fully potted type,good heat dissipation and waterproof performance, high reliability and so on.

Applications:  
industrial lights, sports lighting

## Model List

| Model          | AC Input Range | Max. Pout | Vout Range | Recommended Voltage | Iout     | Default Current | THD (Typ.) | PF (Typ.) | Eff. (Typ.) | Max.Tc |
|----------------|----------------|-----------|------------|---------------------|----------|-----------------|------------|-----------|-------------|--------|
| SS-100CNH-G300 | 90-264Vac      | 100W      | 180-300V   | 200V-300V           | 0.3-0.5A | 0.33A           | 7%         | 0.96      | 96%         | 90°C   |

Note:

1.Default Tested:at220Vac,full load, Ta 25°C.

2.The performance of the LED Driver can be guaranteed within the full power Vo range.The voltage lower than full power Vo range, it is need to test the performance with the LED module.

# SS-100CNH-G300 LED DRIVER

## Input Characteristics

| Parameter                     | Min.   | Typ.    | Max.   | Remark                   |
|-------------------------------|--------|---------|--------|--------------------------|
| AC Input Range                | 90Vac  |         | 264Vac | Reference derating curve |
| Rated operating Voltage Range | 200Vdc |         | 240Vdc |                          |
| Input DC Voltage Range        | 140Vdc |         | 280Vdc |                          |
| Input Frequency Range         | 47Hz   | 50/60Hz | 63Hz   |                          |
| Max Input Current             |        |         | 0.68A  | 198Vac, Full load        |
| Max Input Power               |        |         | 117W   | 198Vac, Full load        |
| Max Inrush Current(220Vac)    |        |         | 70A    | Cold start, Full load    |
| Power Factor                  | 0.95   | 0.97    |        | 220Vac, Full load        |
|                               | 0.90   |         |        | 198-264Vac,70%-100% load |
| THD                           |        | 7%      | 12%    | 220Vac, Full load        |
|                               |        |         | 20%    | 198-264Vac,70%-100% load |

# SS-100CNH-G300 LED DRIVER

## Output Characteristics

| Parameter                  | Min.      | Typ.  | Max.      | Remark                                                                                        |
|----------------------------|-----------|-------|-----------|-----------------------------------------------------------------------------------------------|
| O/P Voltage Range          | 180V      |       | 300V      | Power derated @180-200V                                                                       |
| Rated O/P Voltage          | 200V      |       | 300V      | Po=Vo*Io=100W, Full load                                                                      |
| Rated O/P Current          | 0.33A     |       | 0.5A      | 0.5A for 200V,0.33A for 300V                                                                  |
| No Load Voltage            |           |       | 350V      |                                                                                               |
| Efficiency @220Vac         | 94.5%     | 96.0% |           | Output 300V/0.33A                                                                             |
| O/P Current Tolerance      | -5%       |       | +5%       | 0.33A~0.5A                                                                                    |
| O/P Current Ripple(PK-AV)  |           | 5%    | 10%       |                                                                                               |
| Start-up Current Overshoot |           |       | 10%       | Full load                                                                                     |
| Start-up Time              |           |       | 0.75S     | 220Vac,Full load                                                                              |
| Line Regulation            | -3%       |       | +3%       | Full load                                                                                     |
| Load Regulation            | -5%       |       | +5%       |                                                                                               |
| Temperature Coefficient    | -0.06%/°C |       | +0.06%/°C | Tc:0°C~90°C                                                                                   |
| OTP                        | 90°C      | 93°C  | 96°C      | Drop current when OTP, and it can be automatically restored after the abnormality is removed. |
| Short Circuit Protection   |           |       |           | Driver will not be damaged                                                                    |

# SS-100CNH-G300 LED DRIVER

## Other Characteristics

| Parameter         | Min.          | Typ. | Max. | Remark                                       |
|-------------------|---------------|------|------|----------------------------------------------|
| Lifetime(Tc≤85°C) | ≥50,000 hours |      |      | 80% load                                     |
| MTBF              | 200,000 hours |      |      | 220Vac,Full load, Ta=25°C<br>(MIL-HDBK-217F) |
| Protection class  | IP65          |      |      |                                              |
| Tc                | 90°C          |      |      |                                              |
| Warranty          | 5 years       |      |      | Tc 85°C                                      |
| Net Weight        | 580g          |      |      | Input line: 300mm                            |
| Dimension         | Φ110mm*59.5mm |      |      | WxH                                          |

NOTE: All the parameters above are tested Ta 25°C and LED load, unless specified.

# SS-100CNH-G300 LED DRIVER

## Environmental Requirements

| Parameter                    | Min.  | Typ. | Max.  | Remark |
|------------------------------|-------|------|-------|--------|
| Operating Temperature(Tcase) | -40℃  | 25℃  | +90℃  |        |
| Storage Temperature          | -40℃  | 25℃  | +90℃  |        |
| Operation Humidity           | 10%RH |      | 90%RH |        |
| Storage Humidity             | 5%RH  |      | 95%RH |        |
| Altitude                     | -65m  |      | 4000m |        |

## Safety and EMI/EMS Standards

| Certification | Standard                                                                          | Status | Remark |
|---------------|-----------------------------------------------------------------------------------|--------|--------|
| UL            | UL8750                                                                            |        |        |
| CUL           | CSA/CSA C22.2 No.250.13                                                           |        |        |
| ENEC          | EN 61347-1<br>EN 61347-2-13<br>EN IEC 62384                                       | ✓      |        |
| RCM           | AS/NZS61347.2.13                                                                  | ✓      |        |
| CCC           | GB/T 19510.1<br>GB/T 19510.213                                                    |        |        |
| CE            | EN 61347-1<br>EN 61347-2-13<br>EN 62493                                           | ✓      |        |
|               | EN 301 489-1<br>EN 301 489-3<br>EN 300 330<br>EN 62479/EN 50663/EN 50665/EN 50364 |        |        |

# SS-100CNH-G300 LED DRIVER

## Safety and EMI/EMS Standards

| EMI/EMS                    | Criterion                        | Status | Remark                      |
|----------------------------|----------------------------------|--------|-----------------------------|
| Conduction Emission        | EN IEC 55015                     | ✓      |                             |
|                            | GB/T 17743                       |        |                             |
|                            | FCC Part 15 Subpart B;ANSI C63.4 |        |                             |
| Radiation Emission         | EN IEC 55015                     | ✓      |                             |
|                            | GB/T 17743                       |        |                             |
|                            | FCC Part 15 Subpart B;ANSI C63.4 |        |                             |
| Harmonic Current Emissions | EN IEC 61000-3-2                 | ✓      | ClassC                      |
|                            | GB 17625.1                       |        |                             |
| Surge                      | IEC/EN61000-4-5                  | ✓      | DM: 6kV,CM: 6kV,Criterion B |
|                            | ANSI/C82.77-5                    |        |                             |
| Ring Wave                  | IEC/EN 61000-4-12                | ✓      | DM: 6kV,CM: 6kV,Criterion B |
|                            | ANSI/C82.77-5                    |        |                             |

# SS-100CNH-G300 LED DRIVER

## Safety Test Items

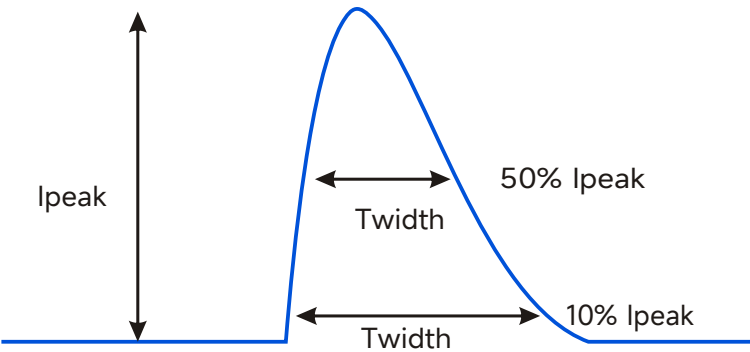
| Safety Test Items       | Technical Indicators       |                             |                             | Remark                          |
|-------------------------|----------------------------|-----------------------------|-----------------------------|---------------------------------|
| Insulation Requirements | UL Insulation Requirements | TUV Insulation Requirements | CCC Insulation Requirements |                                 |
| Input-Case              | /                          | 2U+1000Vac                  | /                           | Basic insulation                |
| Input-Dim               | /                          | /                           | /                           | Reinforced insulation           |
| Dim-Case                | /                          | /                           | /                           | Basic insulation                |
| Insulation Resistance   | $\geq 10\text{M}\Omega$    |                             |                             | Input-Dim, Test voltage: 500Vdc |
| Ground Resistance       | $\leq 0.1\Omega$           |                             |                             | 25A/1min                        |
| Leakage Current         | $\leq 0.75\text{mA}$       |                             |                             | 240Vac                          |

Note:

1. The power supply complies with the relevant EMC standards. The power supply, as part of the terminal equipment system, needs to be combined with the whole system to reconfirm EMC.
2. During voltage withstand test, please short-circuit between L/N, short-circuit between positive/negative output line, and short-circuit between positive/negative dimmer line and auxiliary power supply.

## Performance Curves

### Input Inrush Current

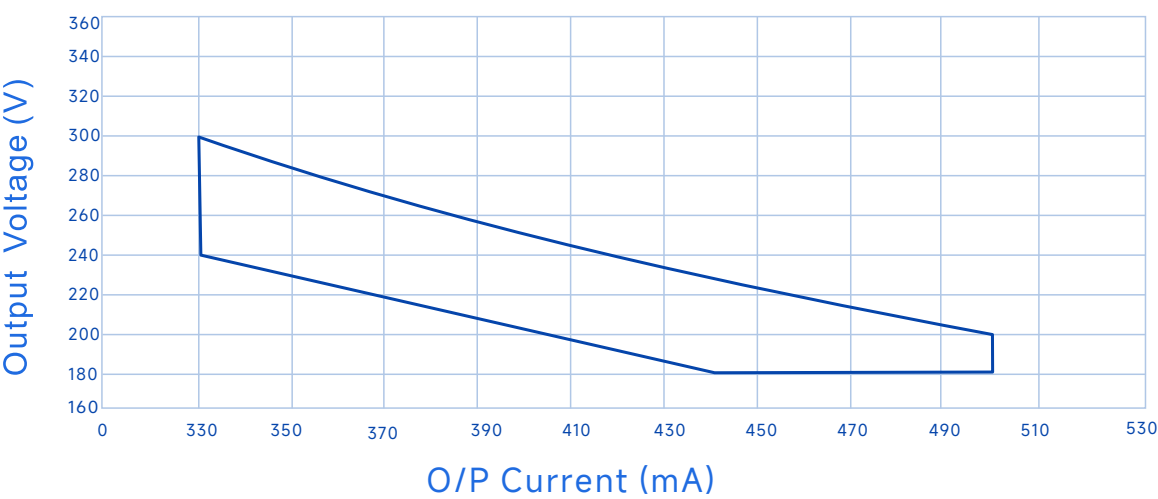


| $V_{in}$ | $I_{peak}$ | $T(@10\% \text{ of } I_{peak})$ | $T(@50\% \text{ of } I_{peak})$ |
|----------|------------|---------------------------------|---------------------------------|
| 220Vac   | 70A        | 400uS                           | 200uS                           |

# SS-100CNH-G300 LED DRIVER

## Performance Curves

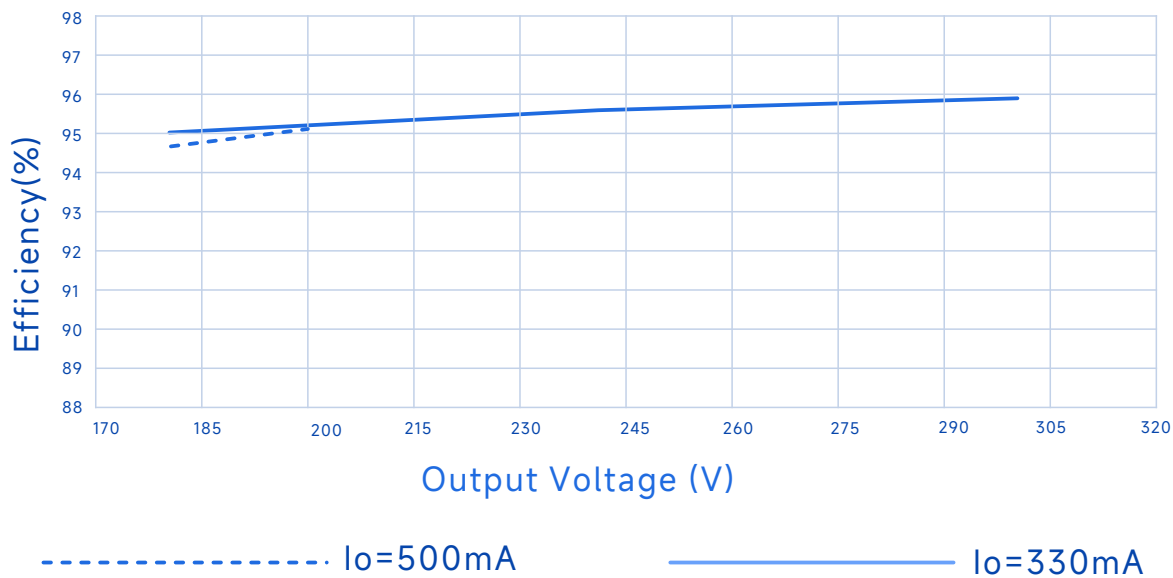
Output Voltage Vs. Output Current



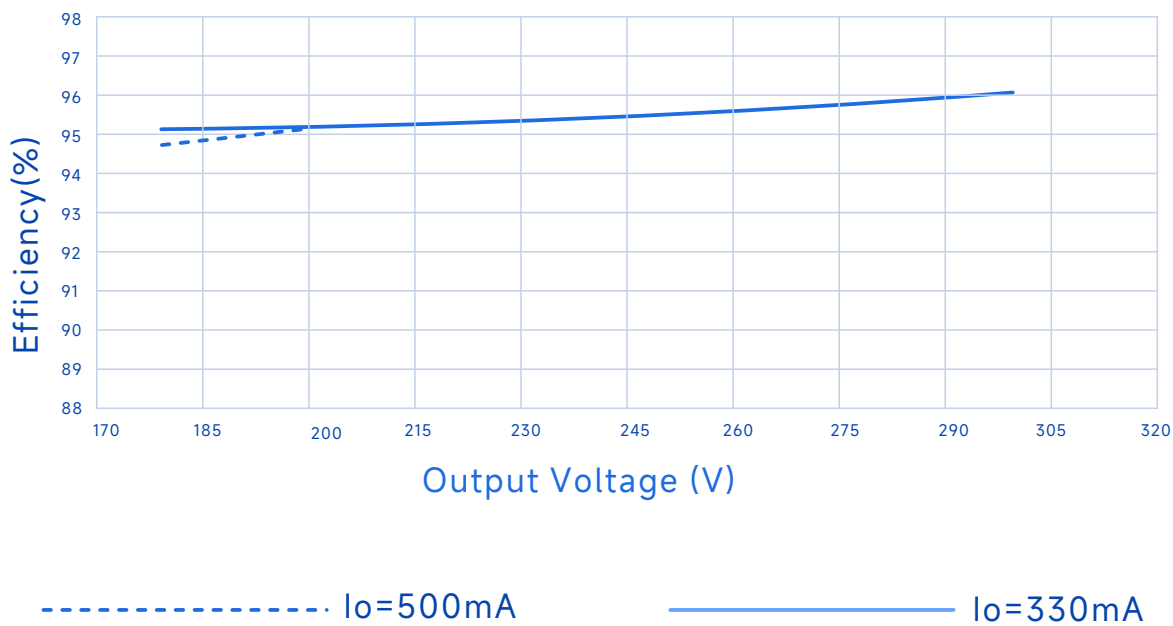
# SS-100CNH-G300 LED DRIVER

## Performance Curves

Efficiency Vs. Output Voltage (Vin=220Vac)



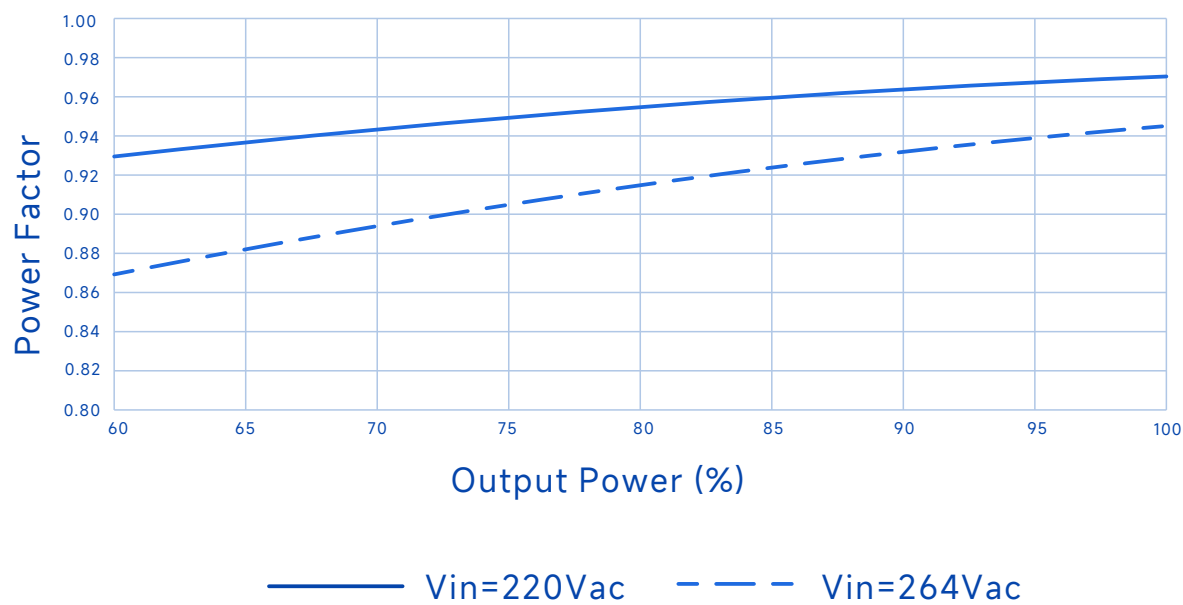
Efficiency Vs. Output Voltage(Vin=264Vac)



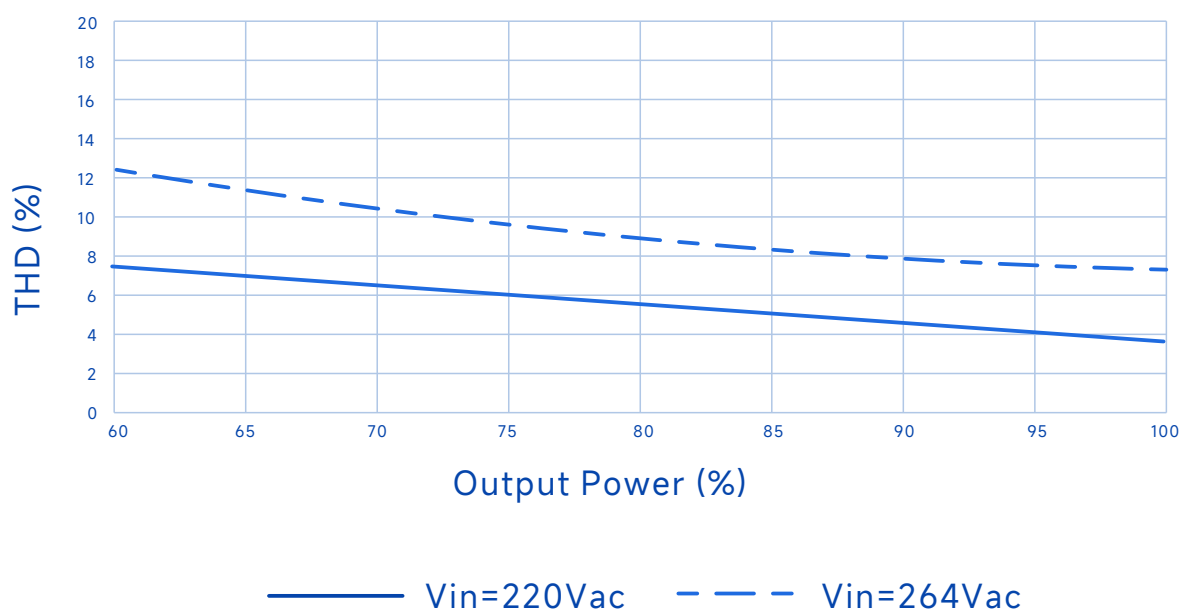
# SS-100CNH-G300 LED DRIVER

## Performance Curves

Power Factor Vs. Output Power



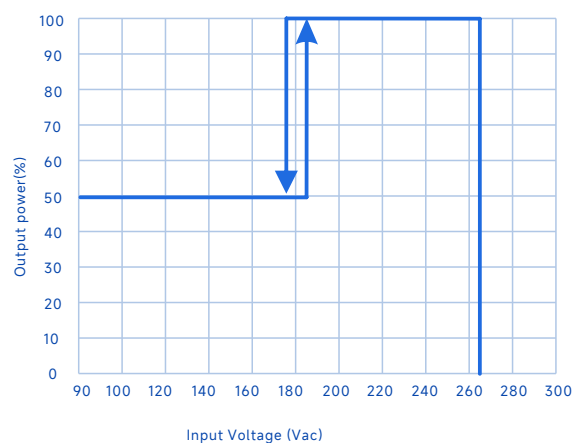
THD Vs. Output Power



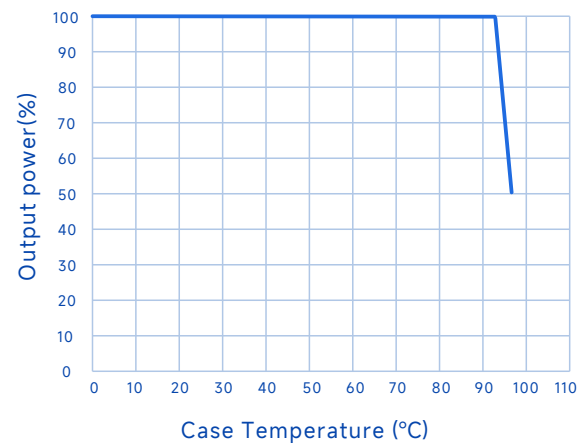
# SS-100CNH-G300 LED DRIVER

## Performance Curves

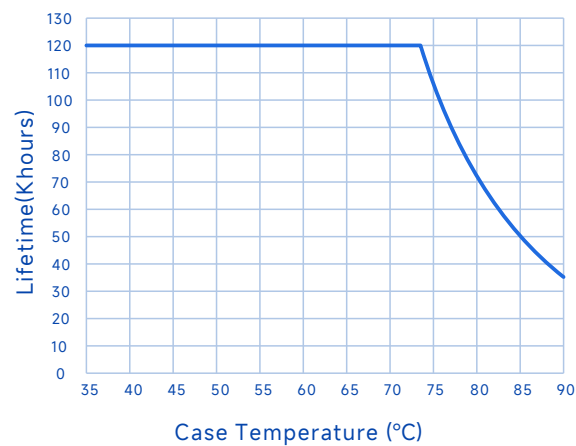
Output Power Vs. Input Voltage



Output Power Vs. Case Temperature

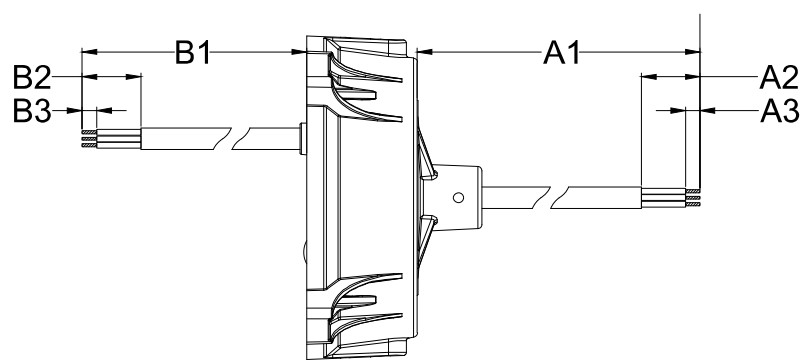


Lifetime Vs. Case Temperature



# SS-100CNH-G300 LED DRIVER

## Mechanical Characteristic



| Optional wires | AC Input Cable (mm) |                    |    | DC ouput Cable mm |      |     |
|----------------|---------------------|--------------------|----|-------------------|------|-----|
|                | A1                  | A2                 | A3 | B1                | B2   | B3  |
| 1#             | 1530±10             | L/N:45±5<br>⊕:57±5 | 8  | 200±10            | 22±3 | 9±1 |
| 2#             | 300±10              | L/N:45±5<br>⊕:57±5 | 8  | 200±10            | 22±3 | 9±1 |

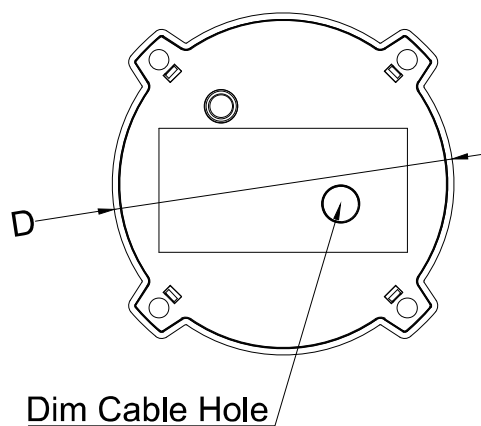
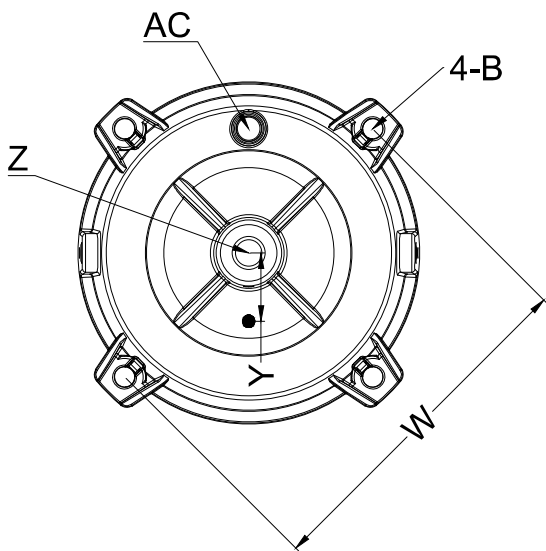
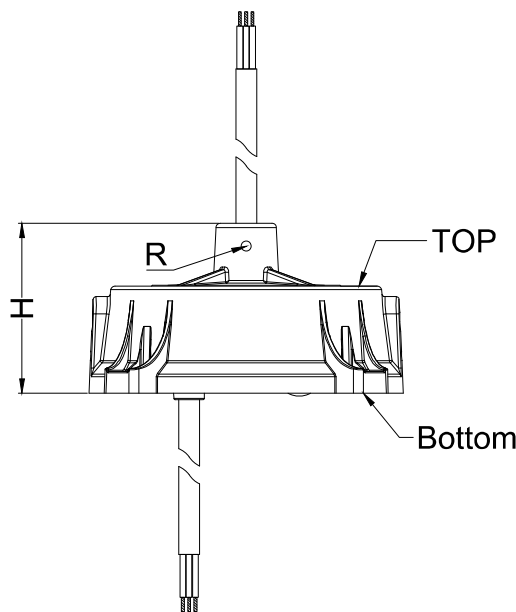
| AC Input Cable                                                                                   | DC ouput Cable                              |
|--------------------------------------------------------------------------------------------------|---------------------------------------------|
| EU<br>H05RN-F, 3x1.0mm, Brown:ACL, Blue:ACN, Yellow/Green:⊕;<br>L/N/Ground plus copper terminal; | EU<br>H05RN-F 2*1.0mm^2, Brown:V+, Blue:V-; |

# SS-100CNH-G300 LED DRIVER

## Mechanical Characteristic

| Name<br>Description           | Standard<br>Code | mm(In.)    |
|-------------------------------|------------------|------------|
| Fixing screw<br>hole diameter | 4-B              | Φ6.5(0.26) |
| Housing Diameter              | D                | Φ110(4.33) |
| Enclosure height              | H                | 59.5(2.34) |
| Eyelet hole<br>(optional)     | Z                | M10*1.5    |
| Eyebolt Holes                 | R                | M4*0.7     |
| Mounting<br>hole size         | W                | 113(4.45)  |
| Tc point location             | Y                | 22(0.866)  |

Note  
1,Please follow the "LED Driver User Manual" obtained  
from SOSEN's official website for assembly.



# SS-100CNH-G300 LED DRIVER



## Assembly Tips

- 1、 If the product has an external adjustable potentiometer, please adjust the current, it is recommended to use 704 silicone to adjust the current of the      Seal the hole of adjusting current with 704 silicone and cover it with waterproof rubber plug.
- 2、 When the dimmer line is not in use, please seal the connector of the dimmer line with insulating sleeve, so as not to string into the interfering signals and cause damage to the dimmer line, affecting the power supply. dimming line damage, affecting the normal operation of the power supply.
- 3, aluminum substrate alignment safety regulations creepage distance > 5mm.
- 4, aluminum substrate LED + and LED - creepage distance > 1.8mm.
- 5, aluminum substrate to minimize the laying of copper area, reduce junction capacitance, reduce leakage current.
- 6, LED lamp bead arrangement is recommended first and then string.
- 7, LED light board insulation level should meet the reliability design requirements.
- 8, other notes, please refer to the “LED driver power supply instruction manual”.

## Package

- Outside carton dimension: L×W×H =577mm×385mm×162mm;
- 15PCS/Carton;
- Net weight/Piece: 0.58kg;Gross weight/Carton: 10.2kg;
- Please refer to the product name, model number, manufacturer identification, QC PASS, manufacturing date on the package.

## Transportation

Packaging is designed suitable for transportation by trucks, vessels and flights. The products should be avoided direct sunlight and rain, loaded/unloaded with caution.

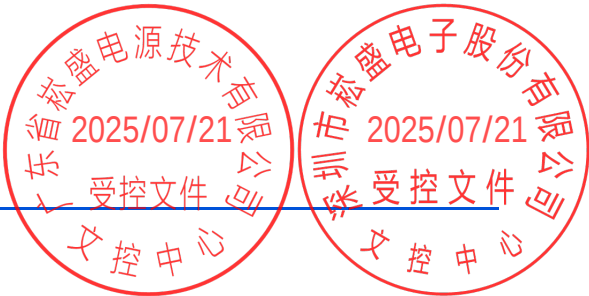
## Storage

The product storage meets the standard of the GB 3873 83.

Products should be rechecked if stored for over 1 year before assembly.

## RoHS

Products comply with RoHS Directive (2011/65/EU) and amendment 2015/863/EU.



Revision History

| Version | Description of Update | Updated Date | Remark |
|---------|-----------------------|--------------|--------|
| V00     | Original Release      | 2025/07/10   |        |
|         |                       |              |        |
|         |                       |              |        |
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