



# SPECIFICATIONS

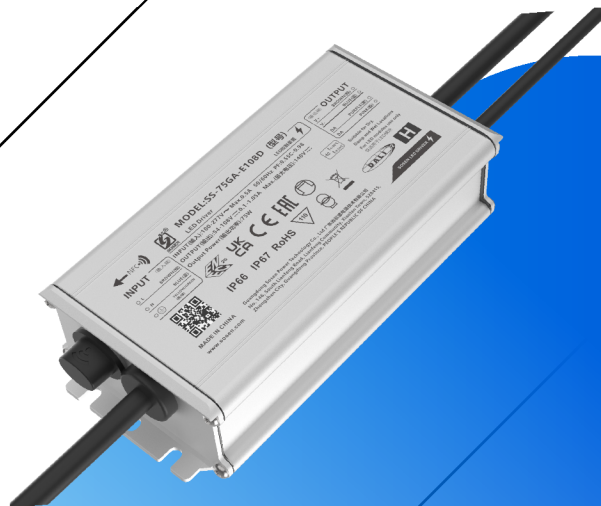
## SS-75GA-E(H) Series NFC DRIVER with DALI-2

Model: SS-75GA-E\*(H)

Power: 75W

Rev.: V02

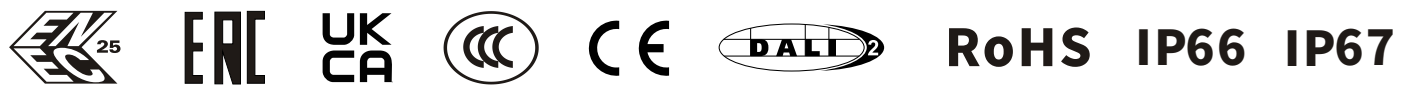
Release date: 2025-12-23



# SS-75GA-E(H) Series NFC Driver with DALI-2

## Features

- Efficiency up to 92.5%
- Output current adjustment method:  
NFC programming
- Isolated dimming: DALI-2
- DALI-2 Certified (Part 251, 252, 253)
- TIM ELA CLO
- Dim-to-Off with Standby Power≤0.5W
- Integrated Power Monitoring
- Suitable for Luminaires with Protection Class I and II
- Protections: SCP/OTP/OVP/OPP
- Surge protection: CM: 10kV, DM: 6kV
- IP66/IP67
- Warranty: 5 years



## Description

The SS-75GA-E\*(H) series products are 75W NFC-programmable DALI-2 waterproof constant current drivers. This series is specifically designed for smart lighting, featuring high efficiency, a wide output range, a compact housing design, and excellent heat dissipation, significantly enhancing product reliability.

Applications:  
Street lights, tunnel lights, industrial lights, high-mast lights, stadium lights.

## Model List

| Model            | AC Input Range | Max. Pout | Vout Range | Recommended Voltage | Iout       | Default Current | THD (Typ.) | PF (Typ.) | Eff. (Typ.) | Max.Tc |
|------------------|----------------|-----------|------------|---------------------|------------|-----------------|------------|-----------|-------------|--------|
| SS-75GA-E62*(H)  | 100-305Vac     | 75W       | 30-62V     | 42-62V              | 0.35-1.78A | 1.56A           | 8%         | 0.97      | 92%         | 90℃    |
| SS-75GA-E108*(H) | 100-305Vac     | 75W       | 54-108V    | 71-108V             | 0.1-1.05A  | 0.7A            | 8%         | 0.97      | 92%         | 90℃    |

Note:

1.Default Tested:220Vac,fullload, 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-75GA-E(H) Series NFC Driver with DALI-2

## “\*” Means Additional Function

| “*” | DALI(suffix:D) | NFC | Class I | Class II | Remark |
|-----|----------------|-----|---------|----------|--------|
| D   | ✓              | ✓   | ✓       |          |        |
| DE  | ✓              | ✓   |         | ✓        |        |

## Input Characteristics

| Parameter                  | Min.   | Typ.       | Max.   | Remark                   |
|----------------------------|--------|------------|--------|--------------------------|
| AC Input Range             | 100Vac | 220-240Vac | 305Vac | Reference Derating Curve |
| Input Frequency Range      | 47Hz   | 50/60Hz    | 63Hz   |                          |
| Max Input Current          |        |            | 0.5A   | 220Vac, Full load        |
| Max Input Power            |        |            | 90W    | 220Vac, Full load        |
| Max Inrush Current(220Vac) |        |            | 60A    | Cold start               |
| Standby Power              |        |            | 0.5W   | 220Vac/50Hz, Dim-to-off  |
| Power Factor               | 0.95   | 0.97       |        | 220Vac/50Hz, Full load   |
|                            | 0.90   |            |        | 220-277Vac,70%-100% load |
| THD                        |        | 8%         | 10%    | 220Vac/50Hz, Full load   |
|                            |        |            | 20%    | 220-277Vac,70%-100% load |

# SS-75GA-E(H) Series NFC Driver with DALI-2

## Output Characteristics(SS-75GA-E62\*(H))

| Parameter                    | Min.  | Typ.     | Max.  | Remark                                                                                        |
|------------------------------|-------|----------|-------|-----------------------------------------------------------------------------------------------|
| O/P Voltage Range            | 30V   |          | 62V   | Power derated @30-42V                                                                         |
| Rated O/P Voltage            | 42V   |          | 62V   | Po=Vo*Io=75W, Full load                                                                       |
| Rated O/P Current            | 1.2A  |          | 1.78A | 1.78A for 42V,1.2A for 62V                                                                    |
| Adj. O/P Current (AOC) Range | 0.35A |          | 1.78A |                                                                                               |
| No Load Voltage              |       |          | 80V   |                                                                                               |
| Efficiency @220Vac           | 89.5% | 91.5%    |       | Output 48V/1.56A,Test after burn-in                                                           |
| Efficiency @277Vac           | 90.0% | 92.0%    |       | Output 48V/1.56A,Test after burn-in                                                           |
| O/P Current Tolerance        | -5%   |          | +5%   | Full load                                                                                     |
| O/P Current Ripple(PK-AV)    |       | 5%       | 10%   | Full load                                                                                     |
| Start-up Current Overshoot   |       |          | 10%   | Full load                                                                                     |
| Start-up Time                |       |          | 0.8S  | 220Vac,Full load                                                                              |
| Line Regulation              | -2%   |          | +2%   | Full load                                                                                     |
| Load Regulation              | -5%   |          | +5%   |                                                                                               |
| Temperature Coefficient      |       | 0.05%/°C |       | Tc:0°C~90°C                                                                                   |
| OTP                          | 90°C  | 100°C    | 110°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-75GA-E(H) Series NFC Driver with DALI-2

## Output Characteristics(SS-75GA-E108\*(H))

| Parameter                    | Min.  | Typ.     | Max.  | Remark                                                                                        |
|------------------------------|-------|----------|-------|-----------------------------------------------------------------------------------------------|
| O/P Voltage Range            | 54V   |          | 108V  | Power derated @54-71V                                                                         |
| Rated O/P Voltage            | 71V   |          | 108V  | Po=Vo*Io=75W, Full load                                                                       |
| Rated O/P Current            | 0.7A  |          | 1.05A | 1.05A for 71V, 0.7A for 108V                                                                  |
| Adj. O/P Current (AOC) Range | 0.1A  |          | 1.05A |                                                                                               |
| No Load Voltage              |       |          | 140V  |                                                                                               |
| Efficiency @220Vac           | 90.0% | 92.0%    |       | Output 108V/0.7A Test after burn-in                                                           |
| Efficiency @277Vac           | 90.5% | 92.5%    |       | Output 108V/0.7A, Test after burn-in                                                          |
| O/P Current Tolerance        | -5%   |          | +5%   | Full load                                                                                     |
| O/P Current Ripple(PK-AV)    |       | 5%       | 10%   | Full load                                                                                     |
| Start-up Current Overshoot   |       |          | 10%   | Full load                                                                                     |
| Start-up Time                |       |          | 0.8S  | 220Vac, Full load                                                                             |
| Line Regulation              | -2%   |          | +2%   | Full load                                                                                     |
| Load Regulation              | -5%   |          | +5%   |                                                                                               |
| Temperature Coefficient      |       | 0.05%/°C |       | Tc:0°C~90°C                                                                                   |
| OTP                          | 90°C  | 100°C    | 110°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-75GA-E(H) Series NFC Driver with DALI-2

## Other Characteristics

| Parameter              |                   | Min.               | Typ. | Max.  | Remark                                    |
|------------------------|-------------------|--------------------|------|-------|-------------------------------------------|
| DALI-2                 | DA, DA High Level | 9.5V               | 16V  | 22.5V |                                           |
|                        | DA, DA Low Level  | -6.5V              | 0V   | 6.5V  |                                           |
|                        | DA, DA Current    | 0mA                |      | 2mA   |                                           |
| Timing Curve(Optional) |                   | By programming     |      |       | Set by program.                           |
| Lifetime(Tc≤80°C)      |                   | ≥50,000 hours      |      |       | 80% load.                                 |
| MTBF                   |                   | 205,560 hours      |      |       | 220Vac,Full load, Ta=25°C (MIL-HDBK-217F) |
| Protection class       |                   | IP66/IP67          |      |       |                                           |
| Tc                     |                   | 90°C               |      |       |                                           |
| Warranty               |                   | 5 years            |      |       | Tc 80°C                                   |
| Net Weight             |                   | 560g               |      |       |                                           |
| Dimension              |                   | 138mm*66mm*34.75mm |      |       | LxWxH                                     |

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

# SS-75GA-E(H) Series NFC Driver with DALI-2

## Environmental Requirements

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

## Safety and EMI/EMS Standards

| Certification | Standard                                                                           | Status | Remark |
|---------------|------------------------------------------------------------------------------------|--------|--------|
| ENEC          | EN 61347-1;EN 61347-2-13                                                           | ✓      |        |
| UKCA          | EN 61347-1;EN 61347-2-13;EN 62493<br>BS EN 61347-1;BS EN 61347-2-13<br>BS EN 62493 | ✓      |        |
| EAC           | EN 61347-2-13<br>EN 61347-1<br>TP TC 004/2011;TP TC 020/2011                       | ✓      |        |
| CCC           | GB 19510.14                                                                        | ✓      |        |
| CE            | EN 61347-2-13;EN 61347-1                                                           | ✓      |        |

| Certification | Standard               | Status |
|---------------|------------------------|--------|
| DALI-2        | IEC62386-101,102 & 207 | ✓      |

Note: DALI Parts:101,102,207,251,252,253.

| EMI/EMS                    | Criterion                          | Remark                       |
|----------------------------|------------------------------------|------------------------------|
| Conduction Emission        | EN55015:2013+A1:2015<br>GB/T 17743 |                              |
| Radiation Emission         | EN55015:2013+A1:2015<br>GB/T 17743 |                              |
| Harmonic Current Emissions | IEC/EN 61000-3-2;GB/T 17625.1      | Class C                      |
| Surge                      | IEC/EN 61000-4-5                   | DM: 6kV,CM: 8kV,Criterion B  |
|                            | EN 61547                           | DM: 6kV,CM: 10kV,Criterion B |

Note: DE models, to ensure surge protection performance, the casing must be reliably grounded.

# SS-75GA-E(H) Series NFC Driver with DALI-2

## Safety Test Items

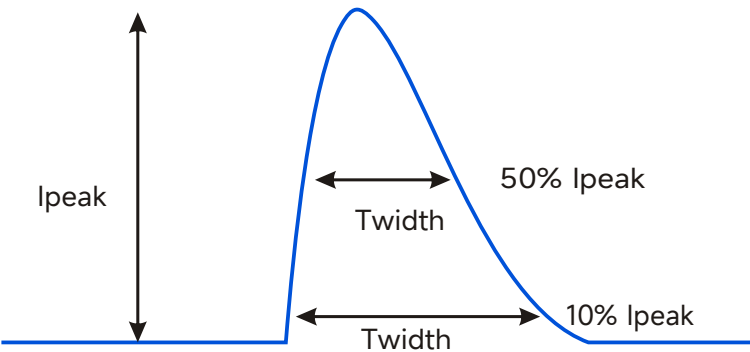
| Safety Test Items       | Technical Indicators         |                             |                              |                             | Remark              |
|-------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|---------------------|
| Models                  | D Models                     |                             | DE Models                    |                             |                     |
| Insulation Requirements | ENEC Insulation Requirements | CCC Insulation Requirements | ENEC Insulation Requirements | CCC Insulation Requirements |                     |
| Input-Output            | 4U+2000Vac                   | 4U+2000Vac                  | 4U+2000Vac                   | 4U+2000Vac                  |                     |
| Input-Case              | 2U+1000Vac                   | 2U+1000Vac                  | 4U+2000Vac                   | 4U+2000Vac                  |                     |
| Input-Dim               | 2U+1000Vac                   | 2U+1000Vac                  | 2U+1000Vac                   | 2U+1000Vac                  | Basic insulation    |
| Dim-Case                | 500Vac                       |                             |                              |                             | Basic insulation    |
| Insulation Resistance   | $\geq 10\text{M}\Omega$      |                             |                              |                             | Test voltage:500Vdc |
| Ground Resistance       | $\leq 0.1\Omega$             |                             |                              |                             | 25A/1min            |
| Leakage Current         | $\leq 0.75\text{mA}$         |                             |                              |                             | 277Vac              |

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

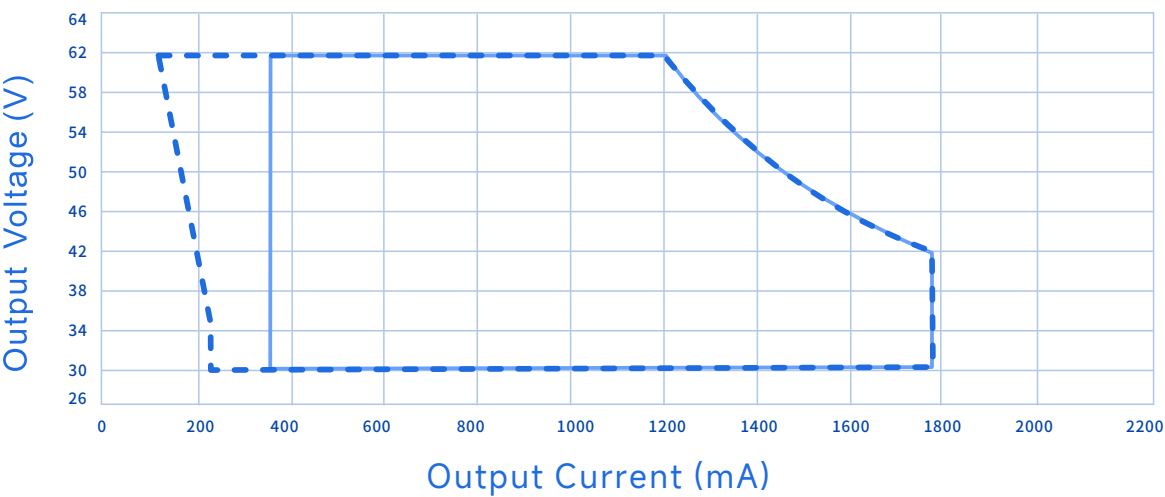


| Vin    | Ipeak | T(@10% of Ipeak) | T(@50% of Ipeak) |
|--------|-------|------------------|------------------|
| 220Vac | 60A   | 510uS            | 300uS            |

# SS-75GA-E(H) Series NFC Driver with DALI-2

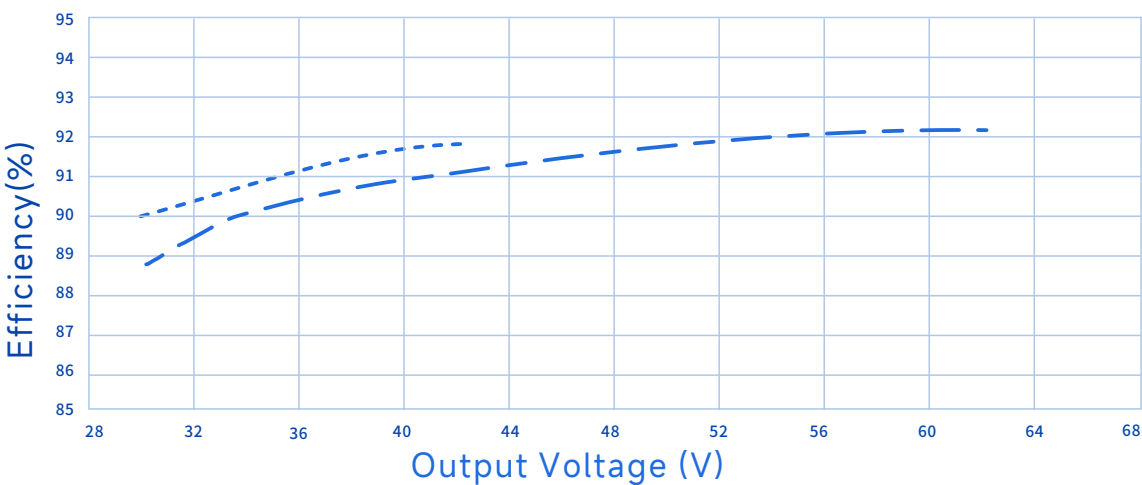
## Performance Curves (SS-75GA-E62\*(H))

Output Voltage Vs. Output Current(Dim/AOC Window)



----- Dimming Window      ————— AOC Window

Efficiency Vs. Output Voltage(Vin=220Vac)

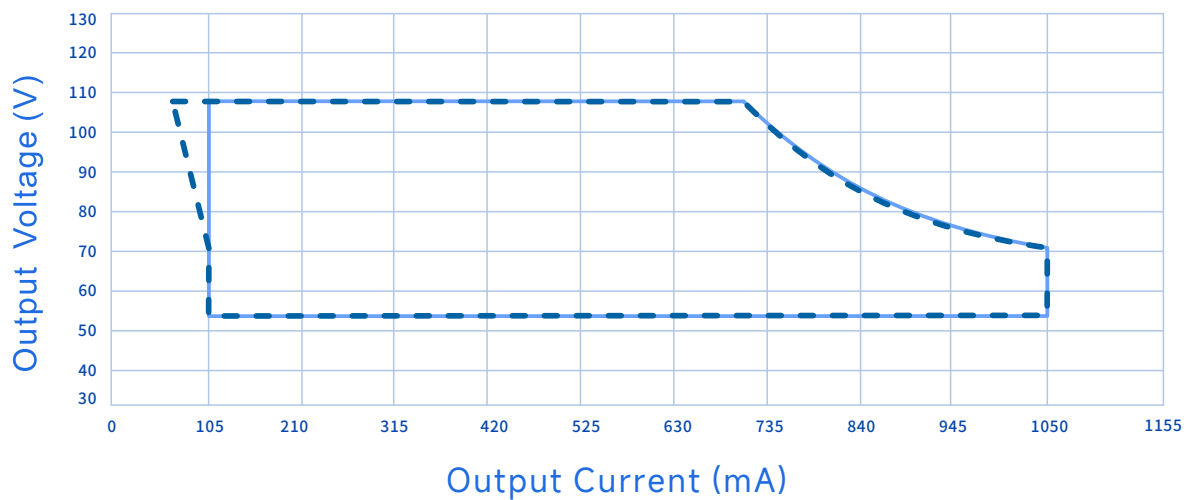


----- Io=1780mA      ——— Io=1200mA

# SS-75GA-E(H) Series NFC Driver with DALI-2

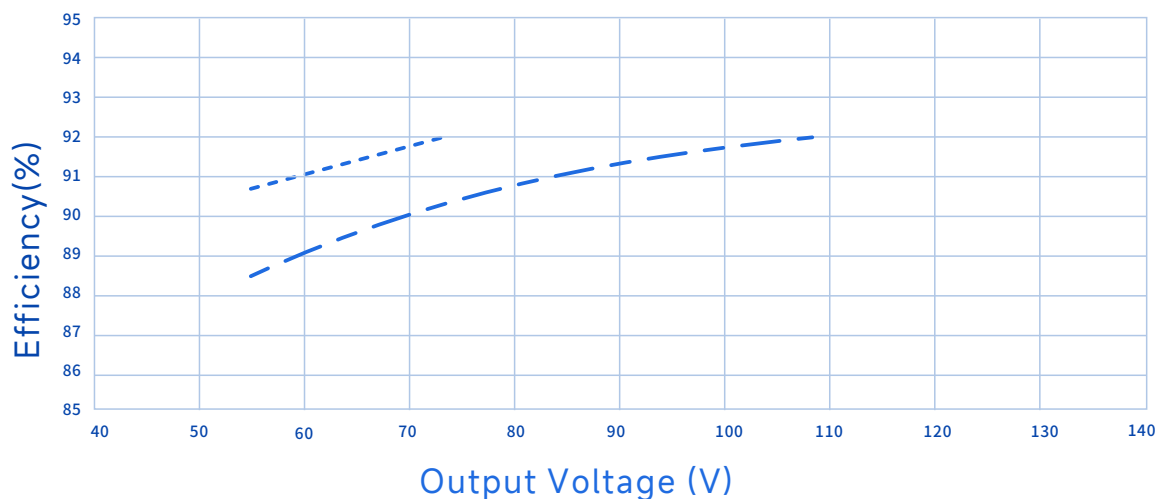
## Performance Curves (SS-75GA-E108\*(H))

Output Voltage Vs. Output Current(Dim/AOC Window)



----- Dimming Window      ————— AOC Window

Efficiency Vs. Output Voltage(Vin=220Vac)

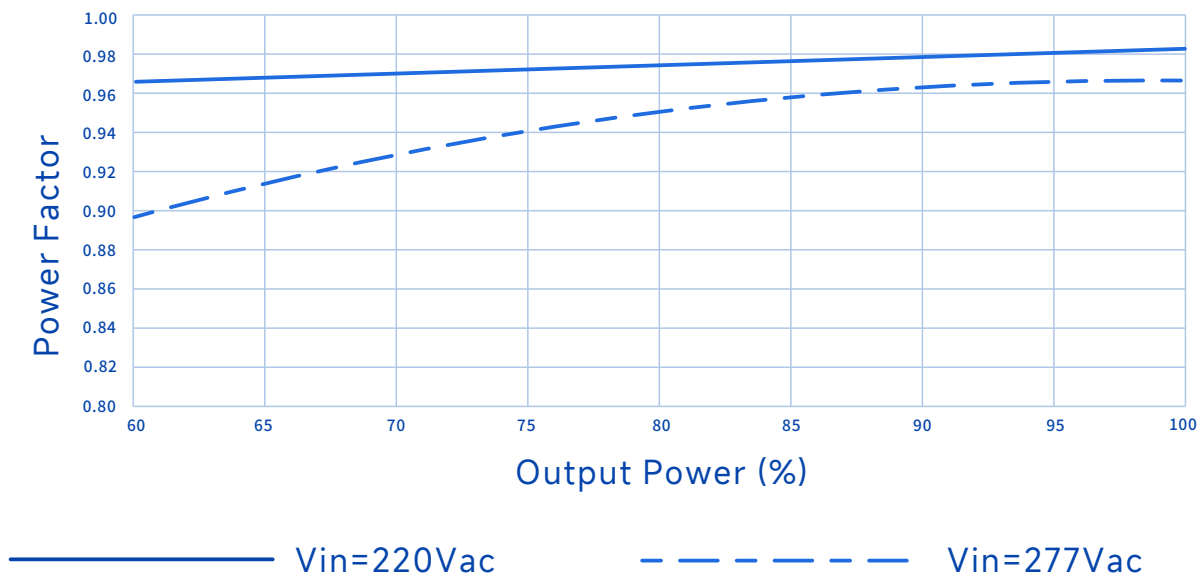


----- Io=1050mA      - . - . - Io=700mA

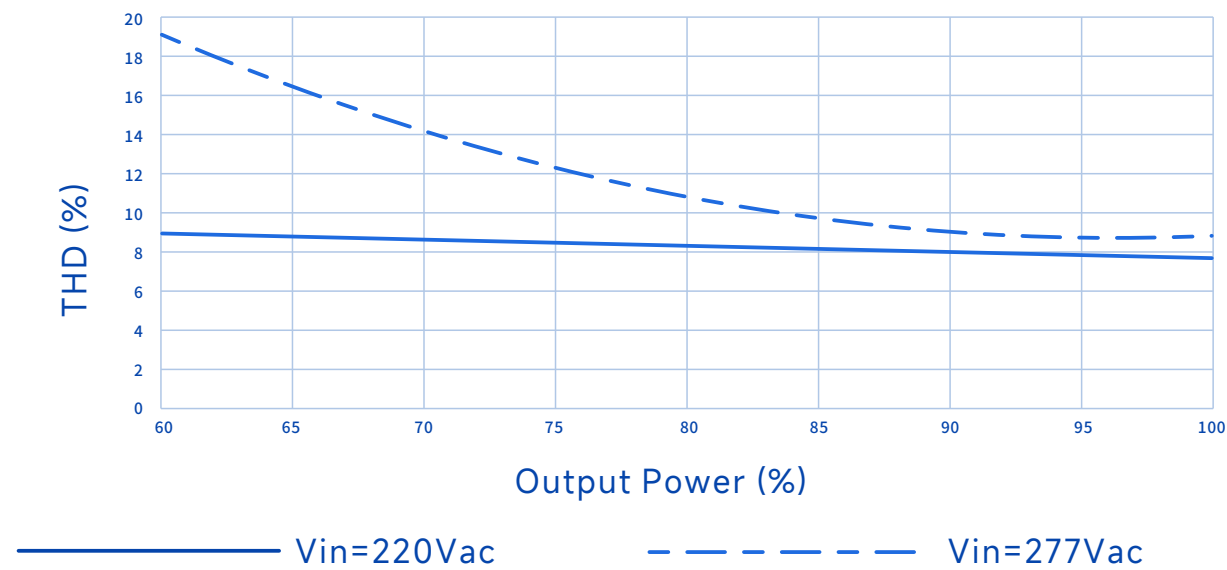
# SS-75GA-E(H) Series NFC Driver with DALI-2

## Performance Curves

Power Factor Vs. Output Power



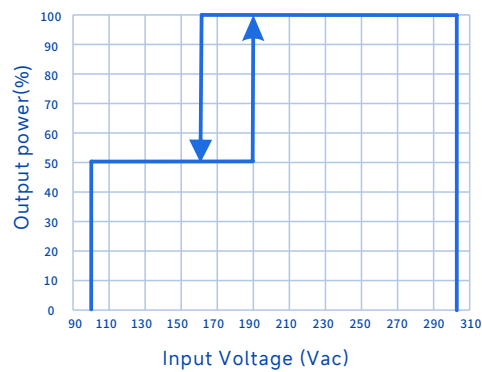
THD Vs. Output Power



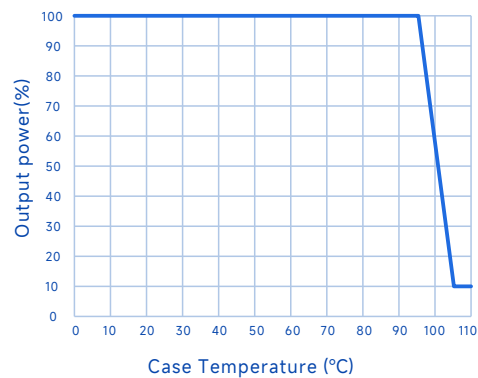
# SS-75GA-E(H) Series NFC Driver with DALI-2

## Performance Curves

Output Power Vs. Input Voltage

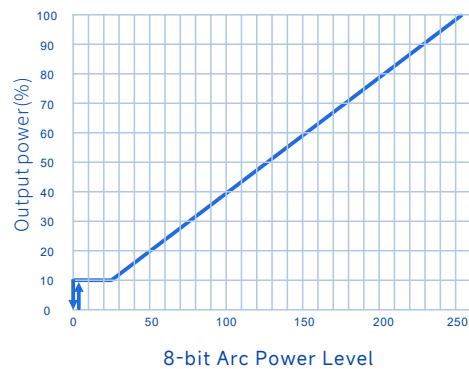


Output Power Vs. Case Temperature

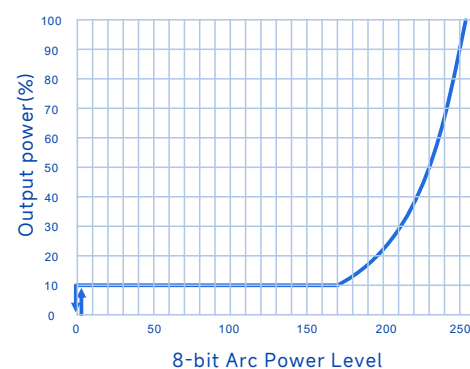


Output Power Vs. Dimming

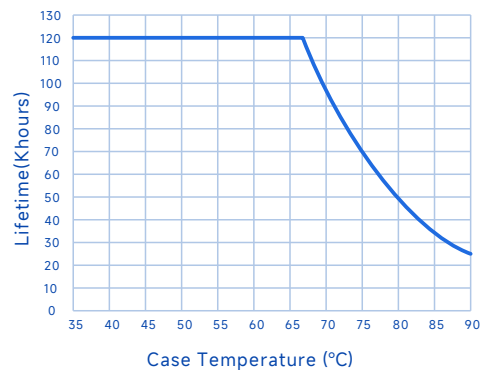
Linear Dimming Curve



Logarithmic Dimming Curve



Lifetime Vs. Case Temperature

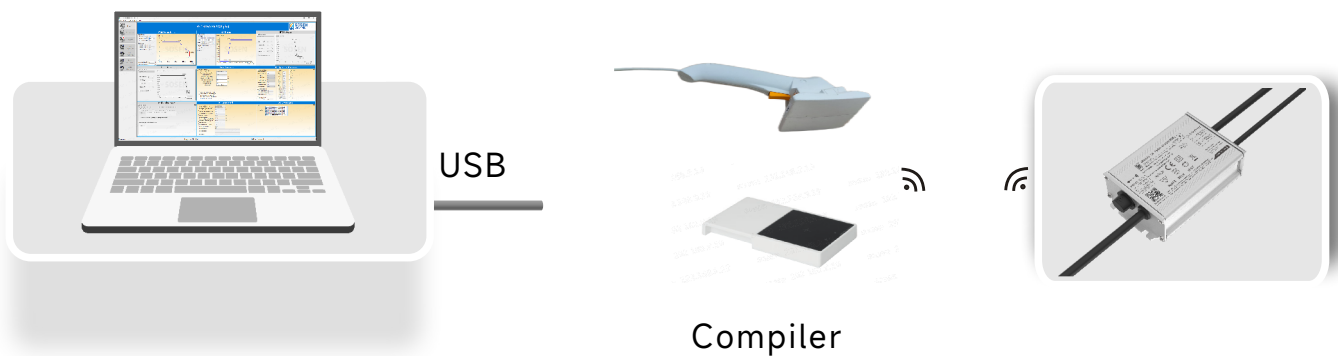


# SS-75GA-E(H) Series NFC Driver with DALI-2

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## Programming connection diagram

1. The driver no need to be powered on during NFC programming.
2. The driver must be powered on during USB programming through DALI dimming wire.
3. For specific operating instructions, please refer to the "SosenProgrammer - Help > Quick Operation Guide."



# SS-75GA-E(H) Series NFC Driver with DALI-2

## Mechanical Characteristic

### Wire gauge (D models)

INPUT

ACL

ACN



LED DRIVER

OUTPUT

V+

V-

DALI

DA

DA

**AC Input Cable(Exposed Length 450±10mm):**

EU model: H05RN-F,3\*1.0mm², O.D:7.3mm,Brown:L, Blue:N,Yellow/Green:

**DC Output Cable(Exposed Length 250±10mm):**

EU model: H05RN-F,2\*1.0mm², O.D:7.0mm, Brown:V+, Blue:V-

**DIM Cable(Exposed Length 220±10mm):**

UL model: STYLE 21996,2\*22AWG , O.D: 4.9mm Purple DA, Pink: DA

### Wire gauge (DE models)

INPUT

ACL

ACN

  
(Optional)

LED DRIVER

OUTPUT

V+

V-

DALI

DA

DA

**AC Input Cable(Exposed Length 450±10mm):**

EU model: H05RN-F,2\*1.0mm², O.D:7.0mm, Brown:L, Blue:N

EU model: H05RN-F,3\*1.0mm², O.D:7.3mm,Brown:L, Blue:N, Black:   (Optional)

**DC Output Cable(Exposed Length 250±10mm):**

EU model: H05RN-F,2\*1.0mm², O.D:7.0mm, Brown:V+, Blue:V-

**DIM Cable(Exposed Length 220±10mm):**

UL model: STYLE 21996,2\*22AWG , O.D: 4.9mm Purple DA, Pink: DA

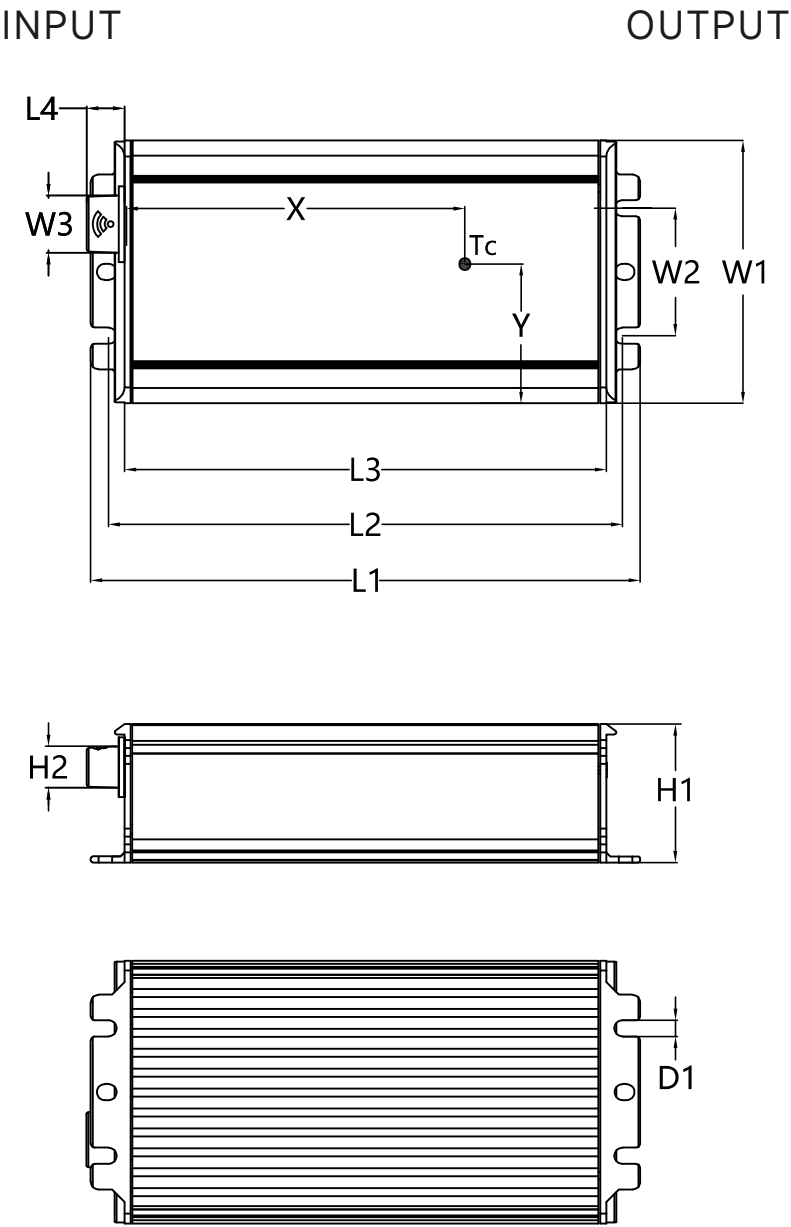
NOTE:  
AC Input Cable,DC O/P Cable,DIM/AUX Power/Programming Cable:Peeled length of cable:43±5mm,  
Tinned length of wire:10±2mm

# SS-75GA-E(H) Series NFC Driver with DALI-2

## Outline and mounting dimensions

| Name<br>Description  | Standard<br>Code | mm(In.)     |
|----------------------|------------------|-------------|
| Overall Length       | L1               | 138(5.43)   |
| Mounting Hole Length | L2               | 129.1(5.08) |
| Case Length          | L3               | 121(4.76)   |
| Antenna cap Length   | L4               | 10.5(0.41)  |
| Case Width           | W1               | 66(2.6)     |
| Mounting Hole width  | W2               | 32(1.26)    |
| Antenna cap width    | W3               | 14.4(0.56)  |
| Case Height          | H1               | 34.75(1.37) |
| Antenna cap Height   | H2               | 10.3(0.4)   |
| Screw hole width     | D1               | 4.1(0.16)   |
| TC Point Position    | X                | 90(3.54)    |
| TC Point Position    | Y                | 25(0.98)    |

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



# SS-75GA-E(H) Series NFC Driver with DALI-2

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## Assembly Tips

When the dimmer line is not in use, please seal the connector of the dimmer line with insulating sleeve.

## Package

- Outside carton dimension: L×W×H =495mm×385mm×162mm;
- 16PCS/Carton;
- Net weight/Piece: 0.56kg;Gross weight/Carton: 10.22kg;
- 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                       | 2025/10/22   |        |
| V01     | Update Safety Regulation Testing Items | 2025/12/04   |        |
| V02     | Update the number of packages          | 2025/12/23   |        |
|         |                                        |              |        |
|         |                                        |              |        |
|         |                                        |              |        |
|         |                                        |              |        |
|         |                                        |              |        |
|         |                                        |              |        |
|         |                                        |              |        |