


## SPECIFICATION

**Product name : LAS-200H-470A**

**Release date : 2023/4/15**

|  |                |                               |     |      |
|--|----------------|-------------------------------|-----|------|
|  | Product Type   | LED INTEGRATED SPECIAL DRIVER |     |      |
|  | Product Series | LAS-200H-470A Series          | REV | V2.0 |

## Features

- Class I type for insulation
- Input voltage range:200-240V ~ 50/60Hz
- Efficiency 95% (Typ.)
- Constant current output ,with power limitation for control mode
- Version 1: Half glue (IP42); (optional IP65)  
Version 2: bare plate construction (XP series)
- Surge level:  
differential mode : 4kV  
common mode :6kV
- guaranteed Lifetime : 5 year warranty for half glue; 3 year warranty for bare plate



## Applications


Industrial lighting、Venue lighting

## Model list

| Model NO.        | Rated Input voltage | Max Output power | Output voltage | The default current | Eff. |
|------------------|---------------------|------------------|----------------|---------------------|------|
| LAS-200H-470A    | 200-240V 50/60Hz    | 200W             | 410-470Vdc     | 0.43A               | ≥95% |
| LAS-200H-470A-XP | 200-240V 50/60Hz    | 200W             | 410-470Vdc     | 0.43A               | ≥95% |

### Note:

1. Test conditions: Ta=25℃, under 230Vac input,after running for 30 minutes with full load .


|  |                |                               |     |      |
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## Input characteristics

| Parameter             | Min    | Typ.    | Max    | Remark                        |
|-----------------------|--------|---------|--------|-------------------------------|
| Rated input voltage   | -      | 230Vac  | -      | -                             |
| Input voltage range   | 200Vac | -       | 240Vac | -                             |
| Rated frequency range | -      | 50/60Hz | -      | -                             |
| Power factor          | 0.95   | -       | -      | @230Vac input ,with full load |
| T.H.D.                | -      | -       | 15%    | @230Vac input ,with full load |
| Input current         | -      | -       | 1.1A   | @180Vac input ,with full load |
| Inrush current        | -      | -       | 70A    | 230Vac, cold start (25°C)     |

## Output characteristics

| Parameter   | Min   | Typ.           | Max   | Remark                        |
|---|-------|----------------|-------|-------------------------------|
| Rated current<br>LAS-200H-470A<br>LAS-200H-470A-XP        | -     | 0.43A<br>0.43A | -     | @230Vac input ,with full load |
| Output current range<br>LAS-200H-470A<br>LAS-200H-470A-XP | 0.40A | -              | 0.50A | @230Vac input ,with full load |
| Output voltage range<br>LAS-200H-470A<br>LAS-200H-470A-XP | 410V  | -              | 470V  | -                             |
| Rated power@230Vac)<br>LAS-200H-470A<br>LAS-200H-470A-XP  | -     | 200W<br>200W   | -     | @230Vac input ,with full load |
| No-load voltage<br>LAS-200H-470A<br>LAS-200H-470A-XP      | -     | -              | 520V  | -                             |

|  |                |                               |     |      |
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## Output characteristics

| Parameter  | Min | Typ. | Max   | Remark                                       |
|--|-----|------|-------|--|
| Efficiency@230Vac<br>LAS-200H-470A<br>LAS-200H-470A-XP | -   | 95%  | -     | @230Vac input ,with full load                |
| Accuracy of output current                             | -5% | -    | +5%   | For constant-power range ,<br>with full load |
| Line regulation  | -3% | -    | +3%   | full load                                    |
| Load regulation  | -3% | -    | +3%   | full load                                    |
| Starting time  | -   | -    | 500ms | Full load@230Vac                             |


**Note:** 1.The output current is limited by the input and output voltage, please refer to “I-V WORKING AREA” for details;

## Protections

| Protection                      | description  |
|---------------------------------|--|
| Over temperature protection     | Could recover automatically; Bare plate test when the IC temperature is greater than $100 \pm 3$ C, the output power gradually decreases as the IC temperature increases.                                    |
| Input under-pressure protection | When the input voltage is less than 180 Vac, the output power gradually decreases with the decrease of the input voltage.  |
| Output overload protection      | Overload protection is triggered when the load voltage is greater than $500 \pm 5$ Vdc; Protection mode: hiccup restart, which can be automatically restored after the load abnormal conditions are removed. |
| Output short circuit protection | Hiccup mode; it can be automatically restored after the abnormal conditions are removed.   |

**Note:**

1. Unless otherwise specified, all parameters should be measured at the condition of 230Vac (50Hz) input ,with rated load ,and ambient temperature of 25°C;
2. Including setting error, linear adjustment rate and load adjustment rate;

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## Environmental characteristics


| Environmental categories     | Parameter  |
|------------------------------|--|
| Working temperature          | -40 ~ +55℃@200-240Vac((Refer to "Service Life Curve"))                                   |
| Safety case temperature      | -40 ~ 90℃  |
| Working humidity             | 20 ~ 95% RH,non-condensing   |
| Storage temperature、humidity | -40~+80℃, 10 ~ 95% RH  |
| Resistant to vibration       | 10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each                                    |
| MTBF                         | 230Khrs min. MIL-HDBK-217F (Ta=25℃)  |
| Lifetime                     | 50000 hours @230Vac,80% load, Tcase=75℃,.Refer to” Tcase VS Lifetime” curve for details. |

## Safety and EMC

| Safety categories    | Standard  |
|----------------------|---|
| Safety               | GB19510.1、GB19510.14、EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、AS/NZS61347.1、AS61347.2.13、EN 62384; |
| EMC                  | EN 55015、EN 61547、EN 61000-3-2、GB/T 17743、GB17625.1、EN 61000-3-3  |
| Surge level          | Differential mode L-N ±4KV(2Ω),common mode L, N-PE±6KV (12Ω) Refer toIEC61000-4-5 2014                    |
| High-pot test        | I/P-PE :1.5KVac   |
| Insulation impedance | I/P-PE:100MΩ / 500VDC; I/P-O/P:100MΩ / 500VDC / 25℃/ 70% RH   |
| Leakage current      | <5mA@230Vac   |

### Note:

**1.Attention! As a component of the whole, the EMC performance of the final product is not only decided by the driver, even if the driver is well-designed and fulfil all the required compliance. The final equipment manufacturers must re-qualify EMC Directive on the complete product.**

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I-V Working area

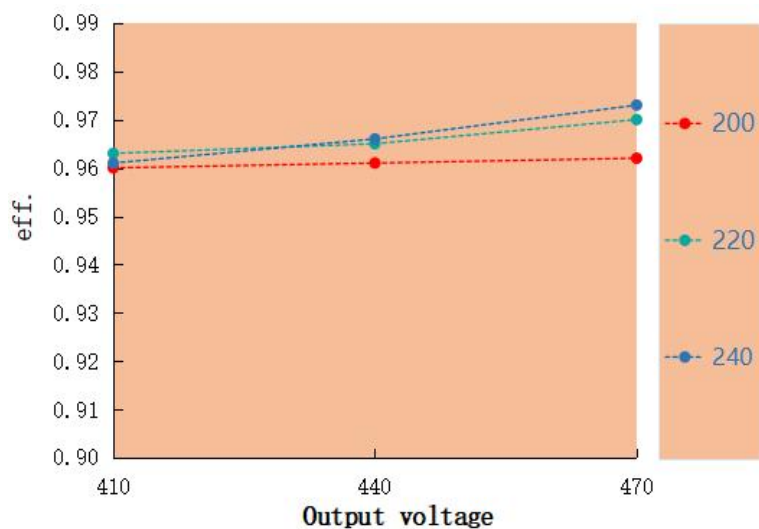
LAS-200H-470A

| Load                 | Output |        |        |        |        |        |       |
|----------------------|--------|--------|--------|--------|--------|--------|-------|
| Load working Voltage | 410V   | 420V   | 430V   | 440V   | 450V   | 460V   | 470V  |
| Io_MAX               | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A |
| Po_MAX               | 176.3W | 180.6W | 184.9W | 189.2W | 193.5W | 197.8W | 200W  |

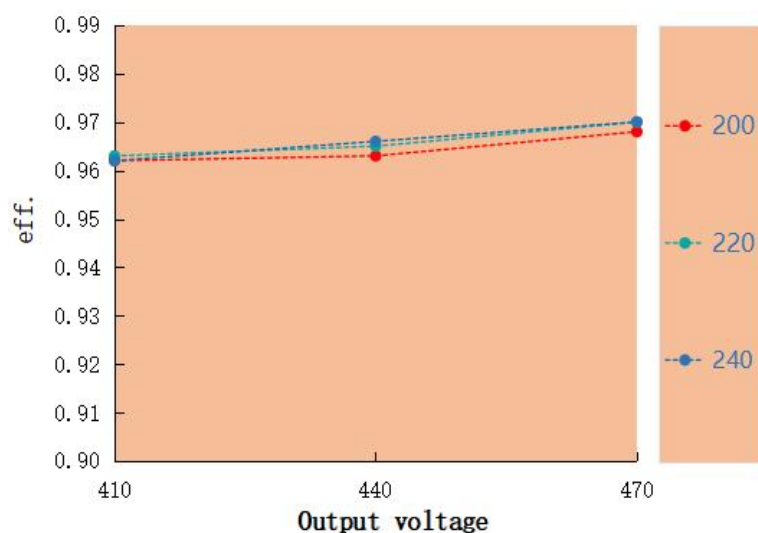
LAS-200H-470A-XP

| Load                 | Output |        |        |        |        |        |       |
|----------------------|--------|--------|--------|--------|--------|--------|-------|
| Load working Voltage | 410V   | 420V   | 430V   | 440V   | 450V   | 460V   | 470V  |
| Io_MAX               | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A |
| Po_MAX               | 176.3W | 180.6W | 184.9W | 189.2W | 193.5W | 197.8W | 200W  |

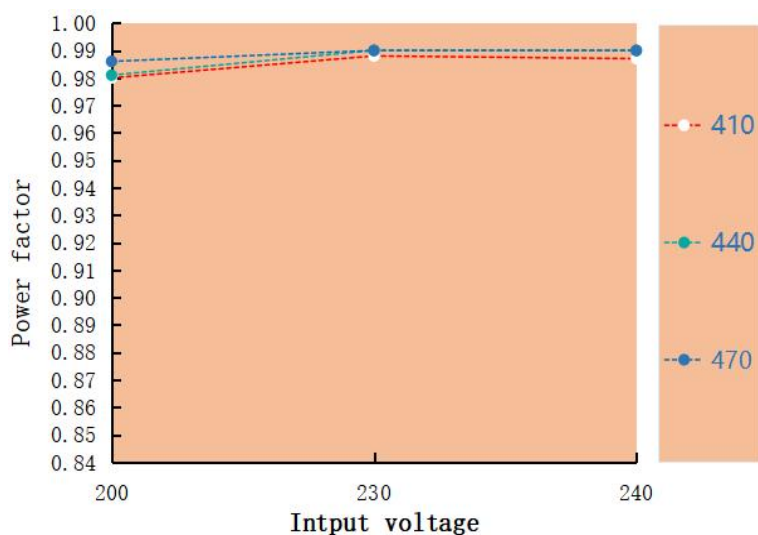
**Eff. VS Output voltage LAS-200H-470A**



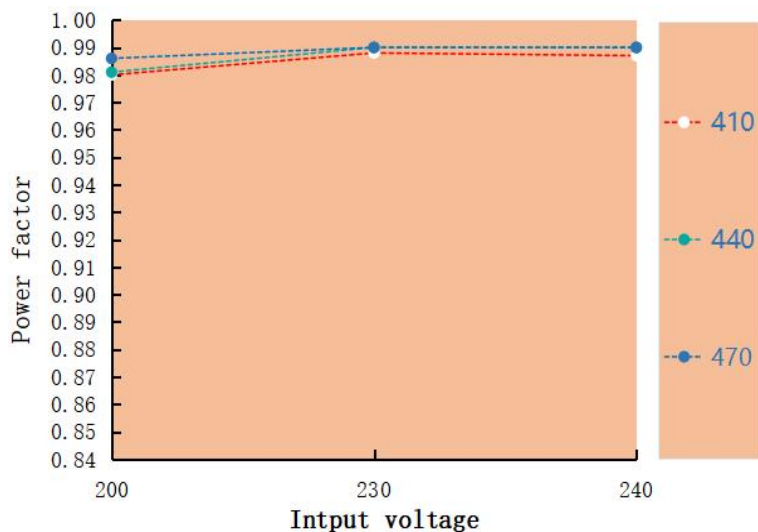
**Eff. VS Output voltage LAS-200H-470A-XP**



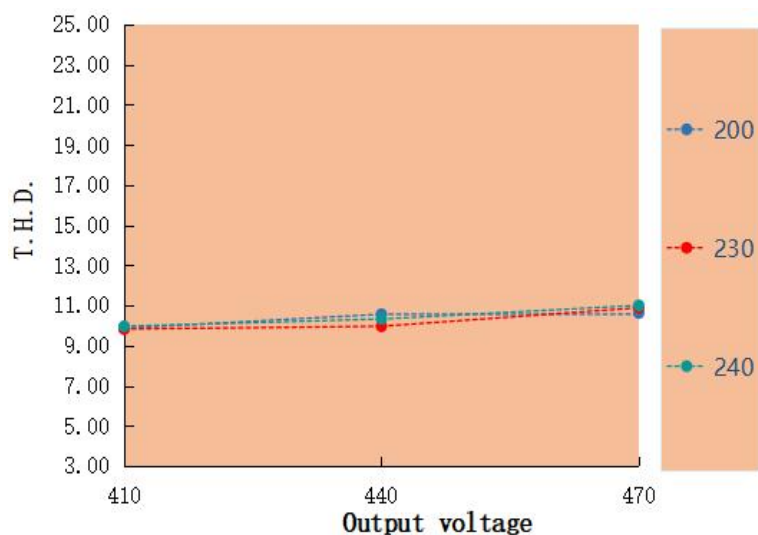
**Power factor VS Input voltage LAS-200H-470A**



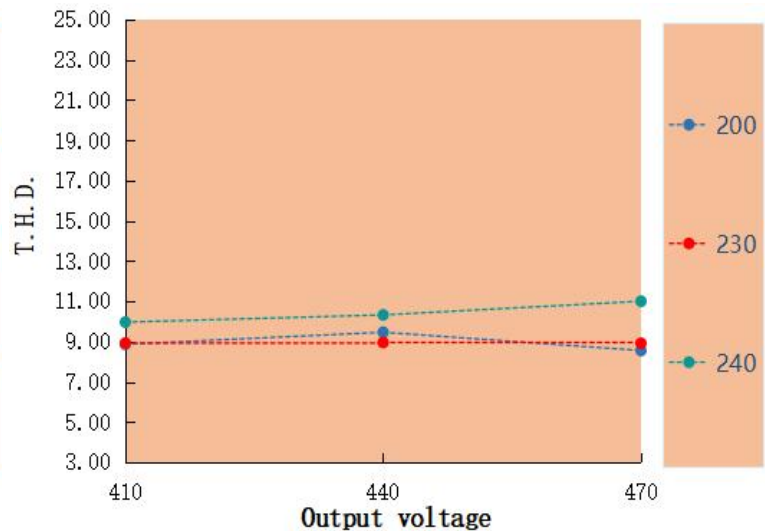
**Power factor VS Input voltage LAS-200H-470A-XP**

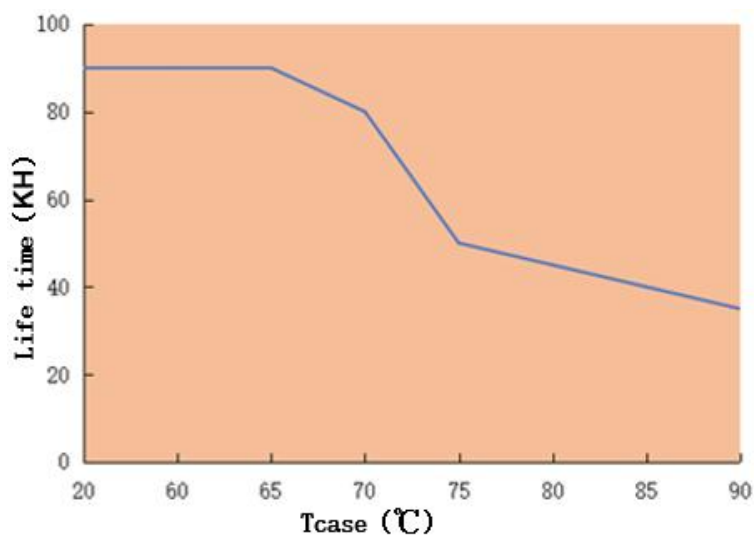
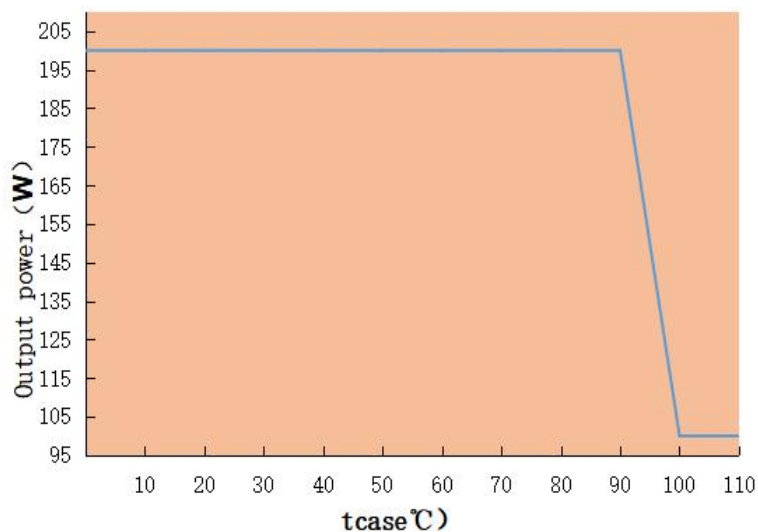


**T.H.D. VS Output voltage LAS-200H-470A**

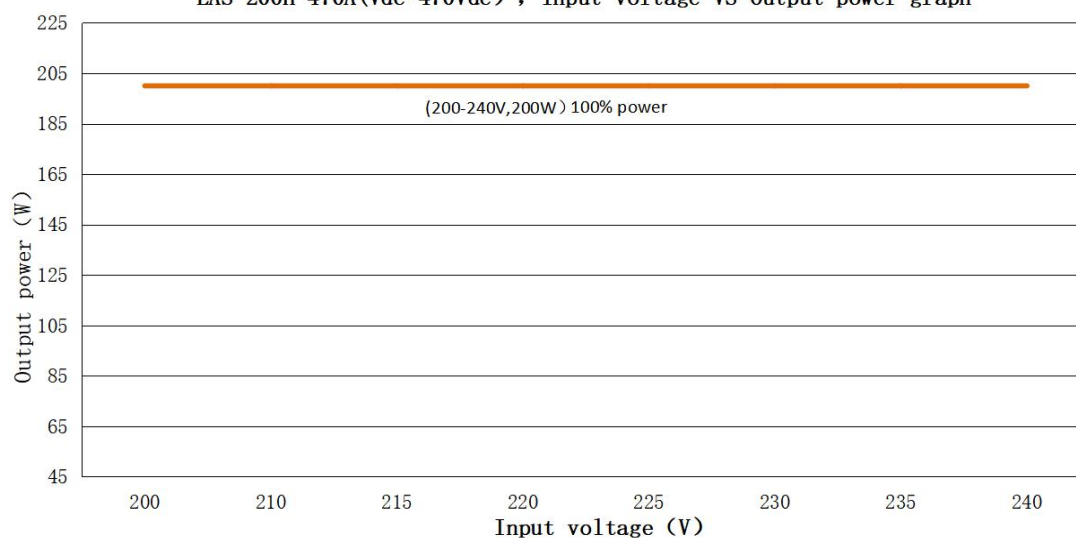


**T.H.D. VS Output voltage LAS-200H-470A-XP**




**Tcase VS Life time LAS-200H-470A**

**Output power VS Tcase LAS-200H-470A**


## Output power VS Input voltage

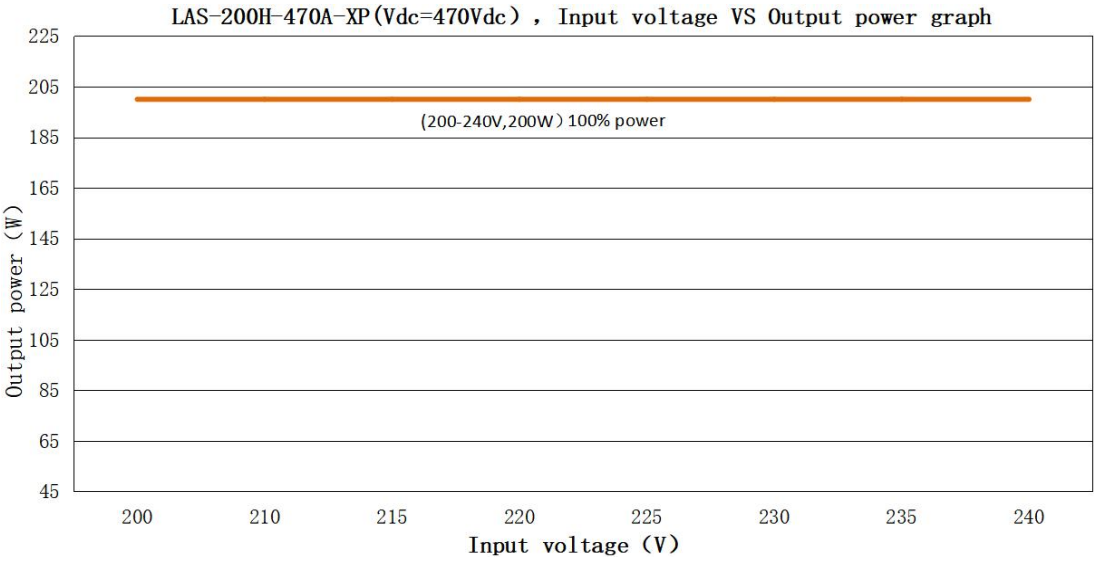
**LAS-200H-470A(Vdc=470Vdc) , Input voltage VS Output power graph**

**LAS-200H-470A(Vdc=470Vdc, the rated output current & power under different input voltage)**

| Input Voltage | 200Vac | 210Vac | 215Vac | 220Vac | 225Vac | 230Vac | 235Vac | 240Vac |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Io            | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  |
| Po            | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   |




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Output power VS Input voltage



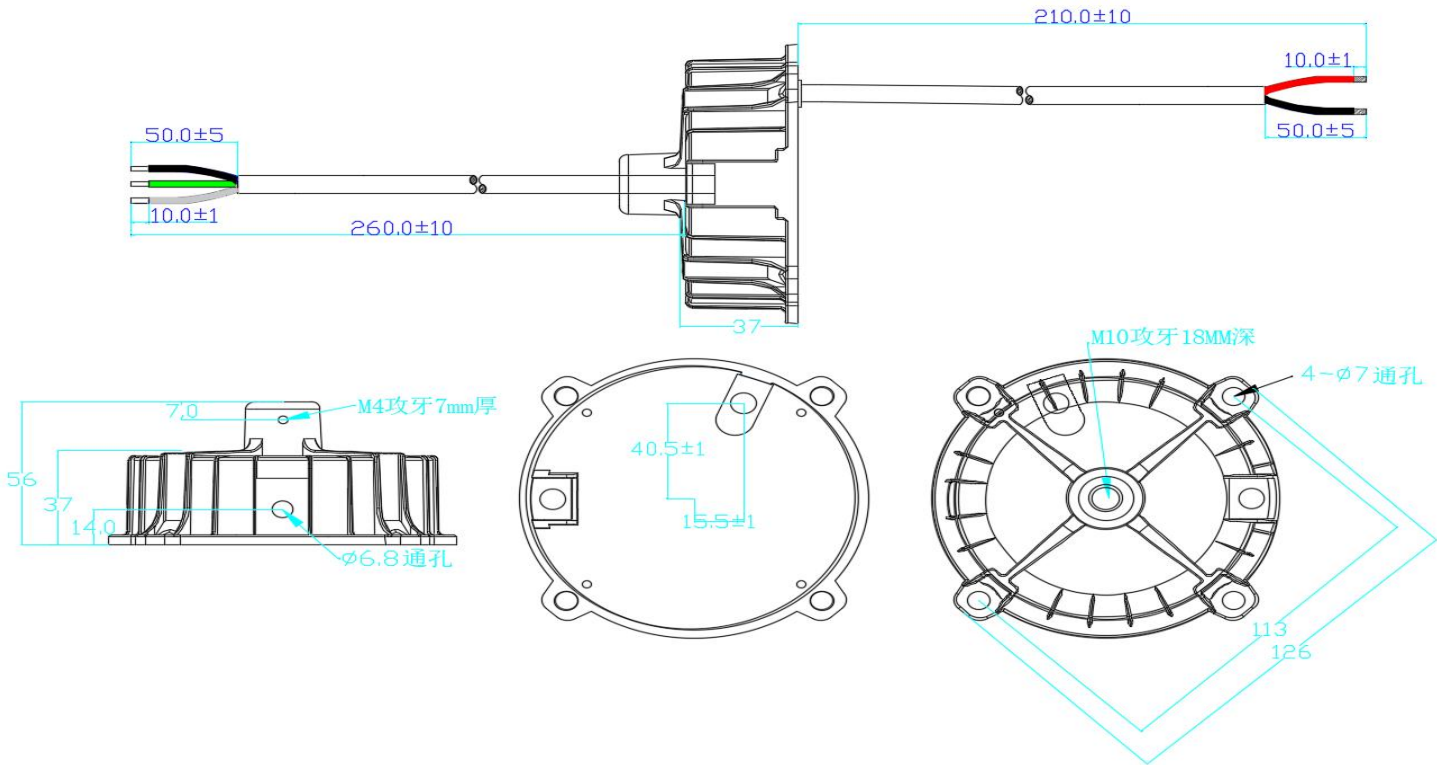
| LAS-200H-470A-XP(Vdc=470Vdc, the rated output current & power under different input voltage) |        |        |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Input Voltage  | 200Vac | 210Vac | 215Vac | 220Vac | 225Vac | 230Vac | 235Vac | 240Vac |
| Io   | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  | 0.43A  |
| Po   | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   | 200W   |

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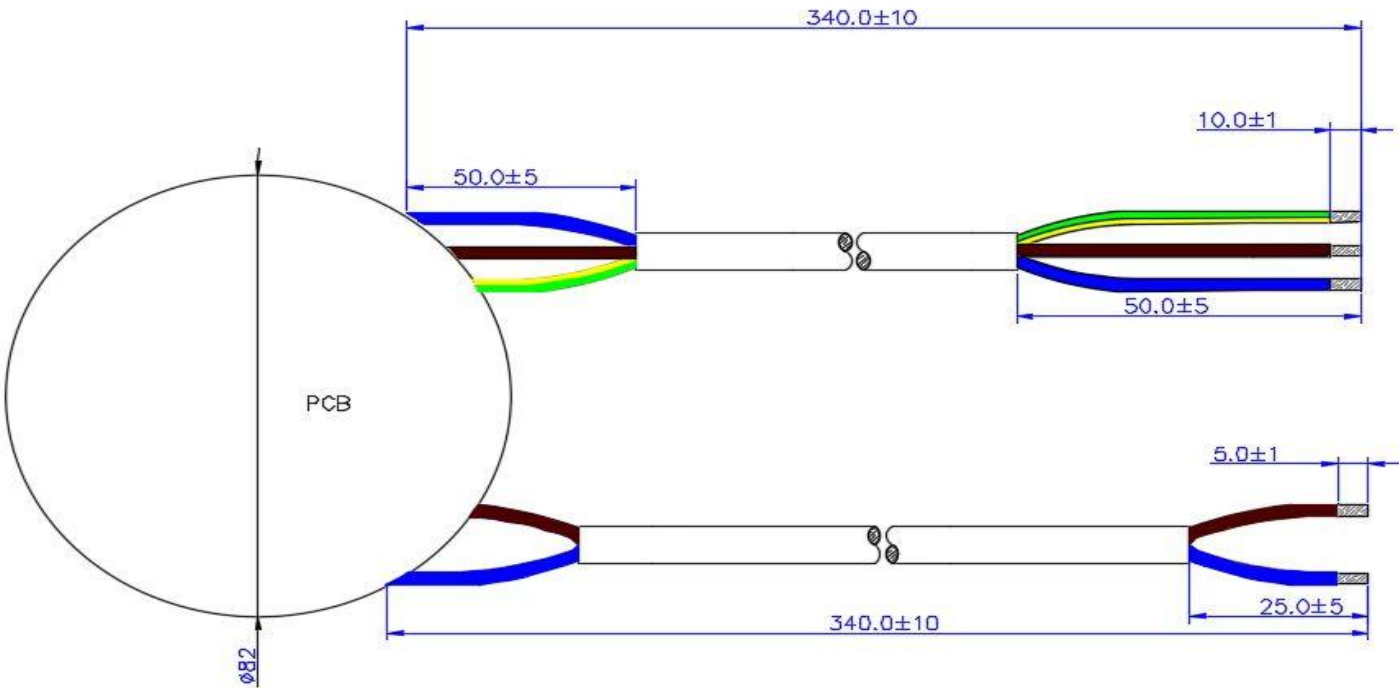
Mechanical specification


|             |                       |                          |  |  |
|-------------|-----------------------|--------------------------|--|--|
| Size (mm)   | Φ 126mm    H 56mm     |                          |  |  |
| Weight (Kg) | LAS-200H-470A    460g | LAS-200H-470A-XP    170g |  |  |

LAS-200H-470A



LAS-200H-470A-XP



|  |                |                               |     |      |
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Version

| DATE       | DESCRIPTION                                  | REV. | CHECK |
|------------|--|------|-------|
| 2023.04.15 | Initial version.                             | V1.0 |       |
| 2023.04.27 | Efficiency has been adjusted from 96% to 95% | V2.0 |       |