

Features

- Input voltage range:108-305Vac
- High efficiency up to 92%
- Low THD,<10%
- Full Power at Wide Output Current Range
- 3 In 1 Dimming Function(0-10V/0-100kΩ/PWM)
- Protection: OVP,SCP
- Waterproof(IP67)
- Input Surge Protection:6kV line-line,10kV line-earth
- High Reliability & Long Lifetime & 5 Years Warranty

Description

The RMX-200-1200 IP67 0-10 L series is a 200W, constant current IP67 LED driver that operates from 108-305Vac input with excellent power factor and THD feature. It is designed for high bay, tunnel, and streetlights. The high efficiency of these drivers and compact metal case enables them to run cooler, significantly improving reliability and extending product lifetime. To ensure trouble-free operation, protection is provided against input surge, output over voltage, short circuit.

Models

| Model | Input Voltage Range | Output Current Range | Full-power Current Range | Output Voltage Range | Full-Output Voltage Range | Max output Power | Max Output Voltage | Power Factor | Typical Efficiency |
|-----------------------------|---------------------|----------------------|--------------------------|----------------------|---------------------------|------------------|--------------------|--------------|--------------------|
| RMX-200-1200 IP67 0-10 L | 120-277Vac | 0.5-1.2A | 0.7-1.2A | 143-286V | 167-286V | 200W | <400V | 0.95 | 92% |

Input Specifications

| Parameter | Min. | Typ. | Max | Notes |
|--|--------------|--------------------------------|---|---|
| Rated Input Voltage | 120V | - | 277V | |
| Range of input voltage | 108V | - | 305V | |
| Nominal Input voltage@ Guarantee Performance, Lifetime | 202V | | 254V | |
| Input Frequency | 47Hz | 50/60Hz | 63Hz | |
| Input Current | - | - | 1.28A | @120Vac,70% load |
| Inrush Current | - | - | 55A | @230VAC |
| Protective conductor current through functional earth (Class I) | - | - | <(2mArms/2) acc.to EN 60598:2009(FDIS 2013) | |
| Touch current: any output to earth and FE to earth | - | - | <0,7 mA/2 peak acc.to EN 60598:2009(FDIS,2013) | |
| Power Factor(@ Full power) Power Factor(@70% load) | 0.95 0.90 | -- | -- | @230VAC |
| THD(@ Full power) THD(@70% load) | - | - | 10% 15% | |
| Surge withstand capability | | L-N: 6kV L- PE& N- PE: 10kV | | L-N: acc. to IEC 61000-4-5 L/N-PE: acc. to IEC 61547 |

Output Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|---|-------|------|--------|------------------------|
| Output Current | 500mA | - | 1200mA | |
| Full Power Output Current range | 700mA | | 1200mA | |
| Output Current Tolerance | -5% | - | 5% | At full load condition |
| Output LF current ripple (< 120 Hz) ((Imax.- Imin.)/(Imax.+Imin.))--Full dimming range | - | -- | 5% | |
| Startup Overshoot Current | - | - | 10% | At full load condition |
| Load Regulation | -5% | - | 5% | |

| | | | | |
|-----------------|-----|----|------|--|
| Line Regulation | -5% | - | 5% | |
| Startup times | - | 1s | 1.5s | |

Note:

- 1) All parameters NOT specially mentioned are measured at 230 Vac input and 25°C of ambient temperature.
- 2) Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 μF parallel capacitor.

General Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|--|---------------------|------------------|-------|---|
| Efficiency@default current 100% load | 90% | 92% | | Measured at 240Vac , full load and steady –state temperature in 25 ambient. Efficiency will be about 2% lower if measured immediately after startup. |
| Efficiency@default current 70% load | 89% | 91% | | |
| MTBF | - | 250,000 Hours | - | |
| Ambient Temperature | -40°C | - | +60°C | ta:50°C(Input Voltage : 108-190V) ta:60°C(Input Voltage: 190-305V) Refer to derating curve for the details. |
| Operating Case Temperature for Safety Tc_s | -40°C | - | +90°C | |
| Operating Case Temperature for Warranty Tc_w | -40°C | - | +75°C | Case temperature for 5 years warranty. Humidity: 5% RH to 85% RH. |
| Lifetime | - | 50,000 Hours | - | See lifetime temperature curve for the details |
| Storage Temperature | -25°C | - | +80°C | Humidity: 5% RH to 85% RH. |
| Dimensions | 195mm x 68mm x 35mm | | | With mounting ear, See mechanical outline for the detail |
| Net Weight | - | 940±100g/PCS | - | |

Dimming Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|-----------------------------------|-------|-------|-------|---|
| Absolute dimming voltage range | -2 | - | 13V | |
| Source current on 1-10V interface | 90uA | 100uA | 110uA | Resistor dimming |
| Sink current on 1-10V interface | | | | PWM & 1-10V dimming |
| Dimming range | 10% | - | 100% | See dimming curve for the detail. |
| Recommended dimming voltage range | 0 | - | 10V | 10V PWM signal, see dimming curve for the detail. |
| PWM High Level | - | 10V | - | |
| PWM Low Level | -0.3V | 0V | 0.6V | |

200W Current Adjustable Constant Current LED Driver

RMX-200-1200 IP67 0-10 L

| | | | | |
|---------------------|-------|---|------|--|
| PWM Frequency Range | 200Hz | - | 2KHz | |
| PWM Duty Cycle | 1% | - | 100% | |

Note:

Dimming Specifications only for RMX-200-1200 IP67 0-10 L.

Safety Standards

| Safety Category | Country / Territory | Standards |
|-----------------|---------------------|-------------------------|
| CE | Europe | EN61347-1, EN61347-2-13 |
| CCC | China | GB19510.1, GB19510.14 |

EMC Compliance

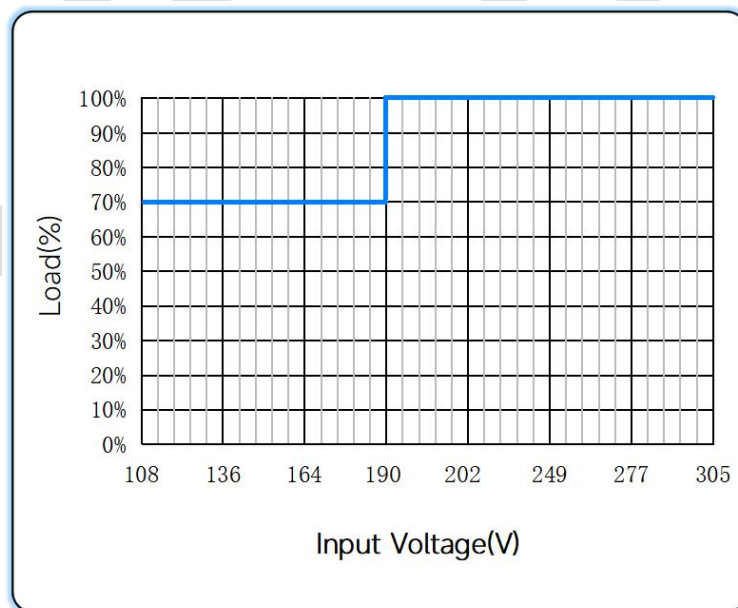
| EMC Category | Country / Territory | Standards |
|--------------|---------------------|--------------------------------------|
| CE | Europe | EN 55015, EN 61000-3-2, EN 61000-3-3 |
| | | EN61000-4-2,3,4,5,6,11 |
| | | EN 61547 |
| CCC | China | GB 17743, GB 17625.1 |

Note:

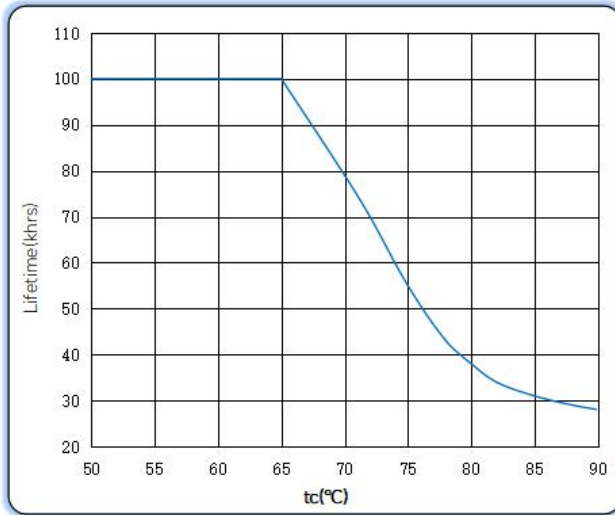
This LED driver meets the EMI specifications above, but EMI performance of a lighting fixture also depends on the other devices on the fixture.

Electrical characteristics

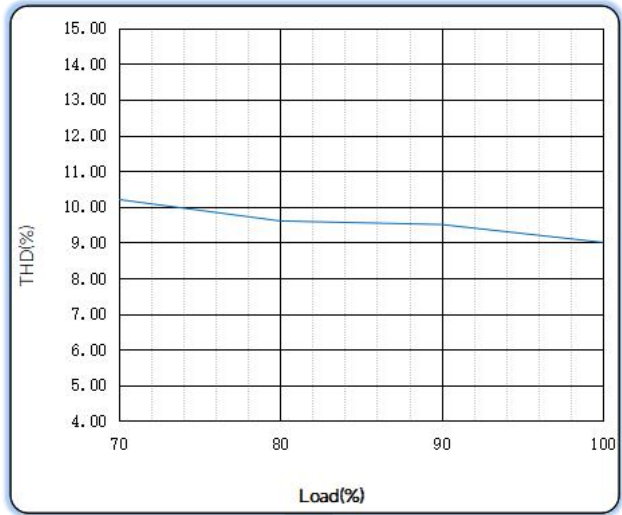
Input Voltage VS Load



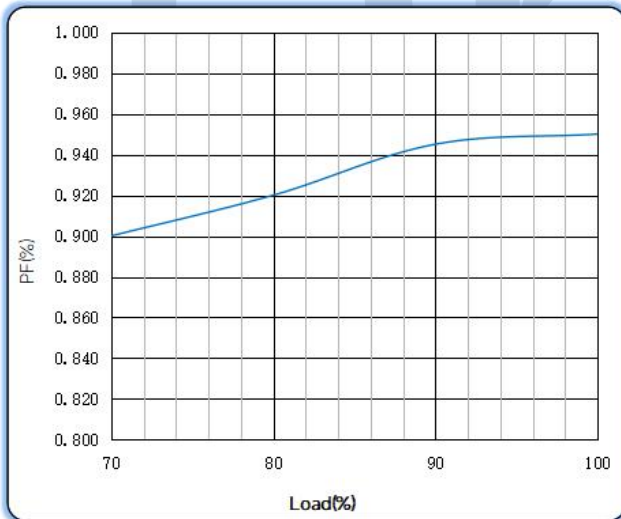
▲ Lifetime VS Tc



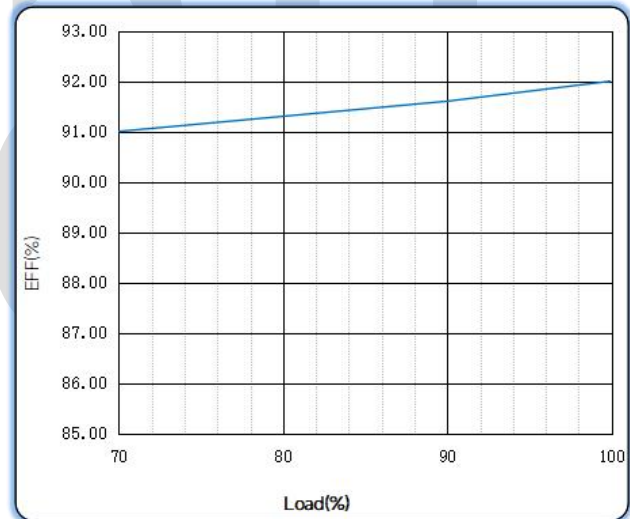
▲ Total Harmonic Distortion VS Load



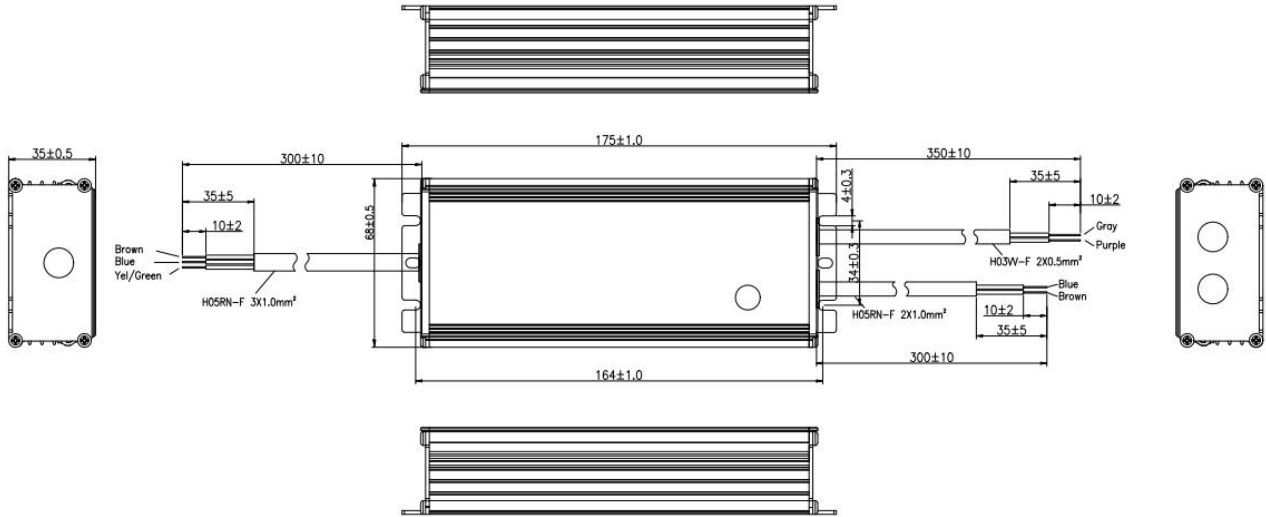
▲ Power Factor VS Load



▲ Efficiency VS Load



Mechanical Outline



Note:

Wire length of input and output can be changed as customer's requirement

| Specification item | Value | Unit | Value | Unit | Type |
|--------------------|-------|------|-------|-----------------|--|
| Input wire | 300 | mm | 1 | mm ² | 3x 1.0mm ² stranded wires, waterproof cable |
| Output wire | 300 | mm | 1 | mm ² | 2x 1.0mm ² stranded wires, waterproof cable |
| Dimming wire | 350 | mm | 0.5 | mm ² | 2x 0.5mm ² stranded wires, waterproof cable |

Revision History

| Change | Before | Now | Version | Data | Note |
|---------|--------|-----|---------|------------|------|
| Initial | | | A | 2023-03-22 | |
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