

Features

LED Driver

- Low profile case (13mm height max.)
- 350mA to 700mA constant current outputs
- Terminal block input/output with cable clamps
- Fully protected (OLP, SCP, OCP, OTP)
- Low standby power, ErP conform
- Low cost

RECOM AC/DC Converter

RACD12-LP

**12 Watt
Constant
Current Single
Output**



IEC/EN61347-1 certified
IEC/EN61347-2-13 certified
ENEC certified
CB report
EN55015 compliant

Description

These low profile constant current LED drivers have been designed for cost-sensitive applications. The SELV outputs are suitable for both independently supplied or built-in power-supply LED luminaires. Their low profile design allows them to be invisibly built into furniture, discreetly mounted under shelves or integrated in space-restricted applications such as coving lighting, strip lighting or troffer lighting systems. The power supplies are short circuit and overload protected and come with a full 3-year warranty.

Selection Guide

| Part Number | Input Voltage Range [VAC] | Input Current [mA] | Output Voltage Range [VDC] | Output Current [mA] | Efficiency typ. [%] | Output Power max. [W] |
|---------------|---------------------------|--------------------|----------------------------|---------------------|---------------------|-----------------------|
| RACD12-350-LP | 198-264 | 130 | 2-37 | 350 | 86 | 13W |
| RACD12-500-LP | 198-264 | 130 | 2-24 | 500 | 81 | 12W |
| RACD12-700-LP | 198-264 | 130 | 2-19 | 700 | 85 | 13W |

All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Specifications (measured @ Ta= 25°C, 240VAC and rated load)

| BASIC CHARACTERISTICS | | | | |
|--|-------------------|--------|--------|---------|
| Parameter | Condition | Min. | Typ. | Max. |
| Input Voltage Range | | 198VAC | 230VAC | 264VAC |
| Inrush Current | | | | 8.0A |
| Start-up Time | | | | 500ms |
| Input Frequency Range | | 47Hz | | 63Hz |
| No Load Power Consumption | | | | 0.5W |
| Power Factor | full load, 230VAC | | | 0.55 |
| Internal Operating Frequency | full load | 60kHz | | 140kHz |
| Output Ripple Current ⁽¹⁾ | | | | 50mAp-p |
| Notes: | | | | |
| Note1: Measured at 20MHz Bandwidth using 0.1µF & 47µF parallel capacitor | | | | |

REGULATIONS

| Parameter | Condition | Value |
|-----------------|-----------|----------|
| Output Accuracy | | ±5% max. |
| Line Regulation | | 5% max. |
| Load Regulation | | 5% max. |

Specifications (measured @ Ta= 25°C, 240VAC and rated load)

PROTECTION

| Parameter | Condition | Value |
|-----------------------------------|------------------------------|--|
| Input Fuse | external fuse is recommended | T1A |
| Open Circuit Protection (OCP) | | auto recovery after fault condition is removed |
| Over Load Protection (OLP) | | auto recovery after fault condition is removed |
| Over Voltage Protection (OVP) | | auto recovery after fault condition is removed |
| Over Temperature Protection (OTP) | 110°C Tcase | auto recovery after fault condition is removed |
| Isolation Voltage | I/P to O/P | 3.75kVAC / 1 minute |

Maximum loading of automatic circuit breakers

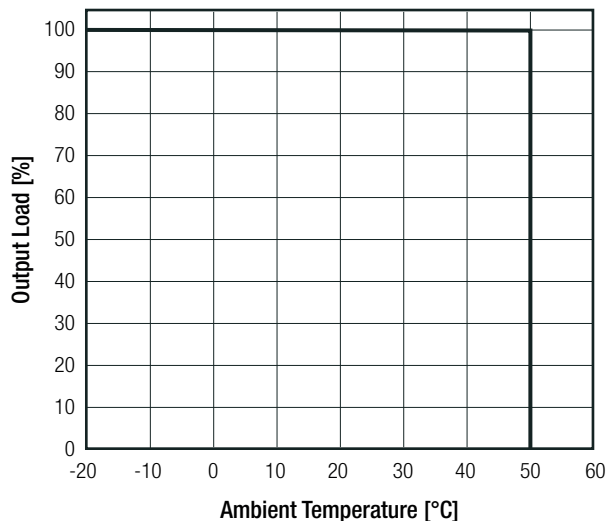
* @ 230VAC, 10hm, 90° phase angle and max. load

| Circuit Breaker | Circuit Breaker Current | | | | |
|-----------------|-------------------------|-----|-----|-----|-----|
| | Typ | 10A | 16A | 20A | 25A |
| B | 17 | 28 | 35 | 44 | |
| C | 37 | 59 | 74 | 92 | |

ENVIRONMENTAL

| Parameter | Condition | Value |
|-----------------------------|----------------|----------------------------|
| Operating Temperature Range | | -20°C to +50°C |
| Maximum Case Temperature | | +80°C |
| Operating Altitude | | 2000m |
| Operating Humidity | non-condensing | 5% to 85% RH |
| IP Rating | | IP20 |
| Pollution Degree | | PD2 |
| Design Lifetime | | 30 x 10 ³ hours |

Derating Graph



Specifications (measured @ Ta= 25°C, 240VAC and rated load)

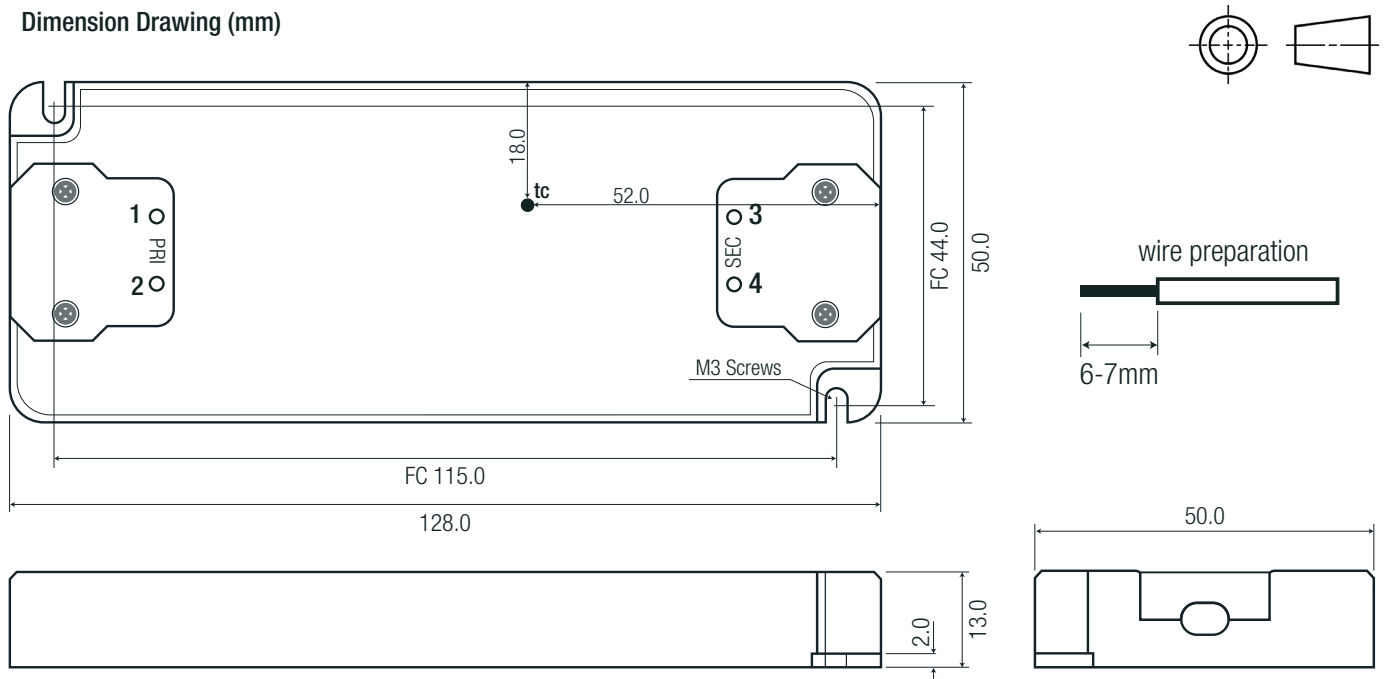
| SAFETY AND CERTIFICATIONS | | |
|--|---|---|
| Certificate Type (Safety) | Report Number | Standard |
| Lamp controlgear Part 1: General and safety requirements (CB Scheme) | 374931 | IEC61347-1:2015+A1:2017, 3rd Edition |
| Lamp controlgear Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules (CB Scheme) | | IEC61347-2-13:2014+A1:2016, 2nd Edition |
| Lamp controlgear Part 1: General and safety requirements (LVD) | | EN61347-1:2015 |
| Lamp controlgear Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules (LVD) | | EN61347-2-13:2014 + A1:2017 |
| Lamp controlgear Part 1: General and safety requirements | 374931 | EN61347-1:2015 |
| Lamp controlgear Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules | | EN61347-2-13:2014+A1:2017 |
| DC or AC supplied electronic control gear for LED modules Performance requirements | 374931 | IEC62384:2006 1st Edition + A1:2009 |
| DC or AC supplied electronic control gear for LED modules Performance requirements | | EN62384:2006 + A1:2009 |
| EAC | RU-AT.49.09571 | TP TC 004/2011 |
| RoHS 2 | | RoHS 2011/65/EU + AM2015/863 |
| EMC Compliance | Condition | Standard / Criterion |
| Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment | 374931 | EN55015:2013 + A1:2015 |
| Equipment for general lighting purposes – EMC immunity requirements | | EN61547:2009 |
| Assessment of lighting equipment related to human exposure to electromagnetic fields | | EN62493:2015 |
| ESD Electrostatic discharge immunity test | ±8kV Air Discharge, ±4kV Contact Discharge | EN61000-4-2:2009, Criteria A |
| Radiated, radio-frequency, electromagnetic field immunity test | 3V/m | EN61000-4-3:2006 + A2:2010, Criteria A |
| Fast Transient and Burst Immunity | ±0.5kV (DC Output) ±1kV (AC Input) | EN61000-4-4:2012, Criteria A |
| Surge Immunity | ±0.5kV (AC Input) | EN61000-4-5:2014 + A1:2017, Criteria A |
| Immunity to conducted disturbances, induced by radio-frequency fields | AC Power Port 3V | EN61000-4-6:2014, Criteria A |
| Voltage Dips and Interruptions | Voltage Dips >95% | EN61000-4-11:2004 + A1:2017, Criteria B |
| Voltage Dips and Interruptions | Voltage Dips 30% | EN61000-4-11:2004 + A1:2017, Criteria B |
| Limits of Harmonic Current Emissions | | EN61000-3-2:2014, Class C |
| Limits of Voltage Fluctuations & Flicker | | EN61000-3-3:2013, Clause 5 |

| DIMENSION and PHYSICAL CHARACTERISTICS | | |
|---|-------------|-----------------------|
| Parameter | Type | Value |
| Material | case | plastic (UL94V-2) |
| Dimension (LxWxH) | | 128.0 x 50.0 x 13.0mm |
| Weight | | 70g |

continued on next page

Specifications (measured @ Ta= 25°C, 240VAC and rated load)

Dimension Drawing (mm)



Connection via Screw Terminal

| # | Function | Solid Wire | Stranded Wire ⁽²⁾ | AWG |
|---|------------|-------------------------|------------------------------|-------|
| 1 | VAC in (N) | 0.75-1.5mm ² | 0.75-1.5mm ² | 20-16 |
| 2 | VAC in (L) | 0.75-1.5mm ² | 0.75-1.5mm ² | 20-16 |
| 3 | LED+ | 0.5-1.5mm ² | 0.5-1.5mm ² | 21-16 |
| 4 | LED- | 0.5-1.5mm ² | 0.5-1.5mm ² | 21-16 |

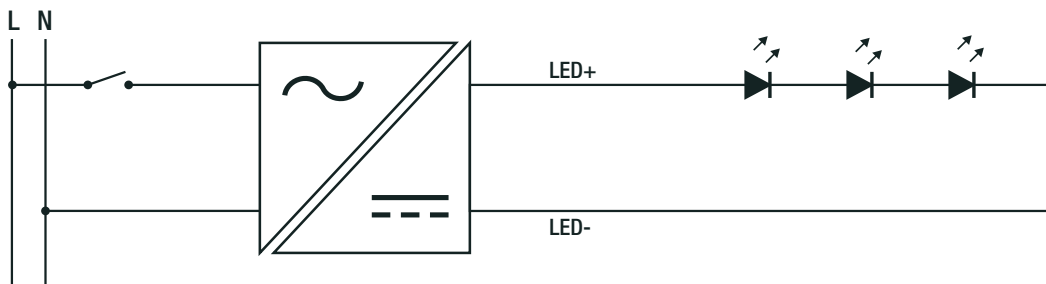
wire stripping length: 6-7mm
recommended tightening torque: 0.25Nm
tc= case temperature measuring point
FC= fixing centers
Tolerance: xx.x= ±0.5mm
 xx.xx= ±0.35mm
2 mounting screws are included

Notes:

Note2: The use of sleeve or ferrule terminations is recommended

INSTALLATION and APPLICATION

Connection



PACKAGING INFORMATION

| Parameter | Type | Value |
|-----------------------------|----------------|------------------------|
| Packaging Dimension (LxWxH) | cardboard box | 265.0 x 139.0 x 62.0mm |
| Packaging Quantity | | 10pcs |
| Storage Temperature Range | | -20°C to +70°C |
| Storage Humidity | non-condensing | 5% - 85% RH |

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