

# Features

## LED Driver

- Low Cost 230VAC LED Power Supply
- 0-10V dimmable
- Active Power Factor Correction >0.9
- Designed to drive 15W-46W COB LEDs
- Terminal Block Input/Output with Cable Clamps
- Fully Protected (OLP, SCP, OCP, OTP)
- Suitable for Class I and Class II Luminaires

### Description

These ErP-compliant COB LED drivers are available with three preset output currents: 350mA, 700mA and 1050mA. They are designed to drive COB (Chip On Board) high power LEDs with a forward voltage between 6V and 44VDC from a 230VAC supply (198-264VAC). They operate with efficiencies of up to 85%, feature active PFC and are fully protected against short circuit, output overvoltage, open-circuit and over-temperature conditions. The output current is dimmable over a 0%-100% range with a 0-10V external control voltage. The LED drivers are suitable for both independent and built-in installations and for installation inside furniture.

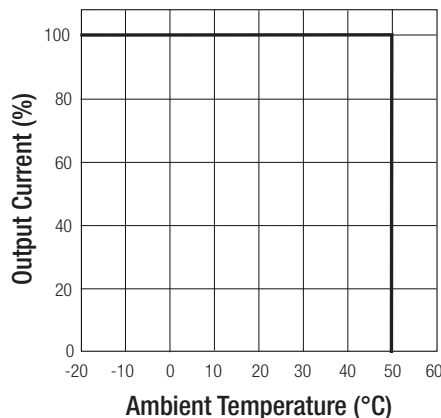
### Selection Guide

Part Number	Input Voltage Range (VAC)	Output Current (mA)	Efficiency typ. (%)	Max. Rated Power (W)
RCOB-350A	198-264	0-350	80	15
RCOB-700A	198-264	0-700	84	31
RCOB-1050A	198-264	0-1050	83	46

### Specifications (measured at TA= 25°C, nominal input voltage, rated load)

BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range		198VAC	230VAC	264VAC
Output Voltage Range	full load	6VDC		44VDC
absolute max. Output Voltage	full load			58VDC
Inrush Current	at 230VAC		5.5A / 10µs	
Start-up Time	at 230VAC		≤0.5 Second	
Input Frequency		47Hz	50Hz	63Hz
Efficiency		see Selection Guide		
Output Current Accuracy	low line to high line, full load		±6%	
Power Factor	full load, 230VAC		0.9	

### Derating Graph



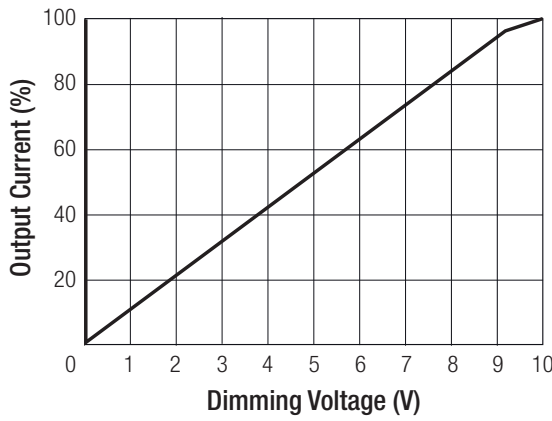
## RCOB-A

**Dimmable**  
**Active PFC**  
**Single Output**



EN-61347-1 Compliant  
EN-61347-2-13 Compliant  
EN-55015 Compliant  
EN-61547 Compliant  
EN-61000-3-2 Compliant  
EN-61000-3-3 Compliant

Refer to Applications Notes

DIMMING		
Parameter	Condition	Value
DC Dimming	0-10V	0-100%
<p><b>Dimming Curve</b></p>  <p>Output = 100% if dimming input not used (open)</p>		

PROTECTION		
Parameter	Condition	Value
Short Circuit Protection (SCP)	230VAC / 50Hz	constant current limit at $I_{nominal}$ and recovers after fault condition is removed
Over Load Protection (OLP)	230VAC / 50Hz	power limiting, if forward voltage of LED's is higher than 44VDC
Output Over Voltage Protection (OVP)	230VAC / 50Hz	58V max.
Output Over Current Protection (OCP)	230VAC / 50Hz	constant current source
Over Temperature Protection (OTP)		automatic recovery after cool down
Surge Capacity	L-N	2kV
	L,N-FG	4kV

ENVIRONMENTAL		
Parameter	Condition	Value
Operating Temperature Range max. Case Temperature Range	All Types	-20°C to +50°C, Ambient
	RCOB-350A	80°C max., Ambient
	RCOB-700A	85°C max., Ambient
	RCOB-1050A	90°C max., Ambient
Storage Temperature Range		-30° to +80°C, Ambient
Storage Humidity		30% - 95% RH
Operating Humidity	RCOB-1050A	45% to 85% RH
	RCOB-350 and RCOB-700A	5% to 85% RH, non condensing
MTBF	at Ta= 70°C; Iout: 350mA	45 x 10 <sup>3</sup> hours
	at Ta= 70°C; Iout: 700mA, 1050mA	50 x 10 <sup>3</sup> hours

**Specifications (measured at T<sub>A</sub>= 25°C, nominal input voltage, rated load)**

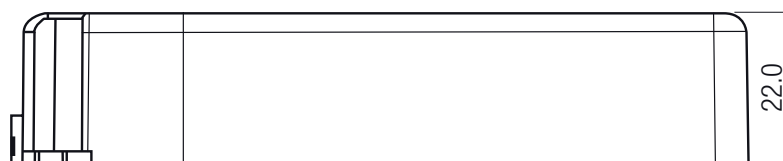
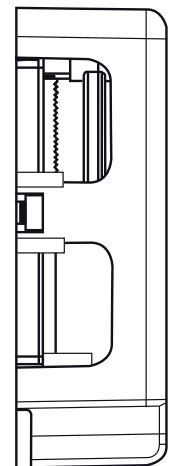
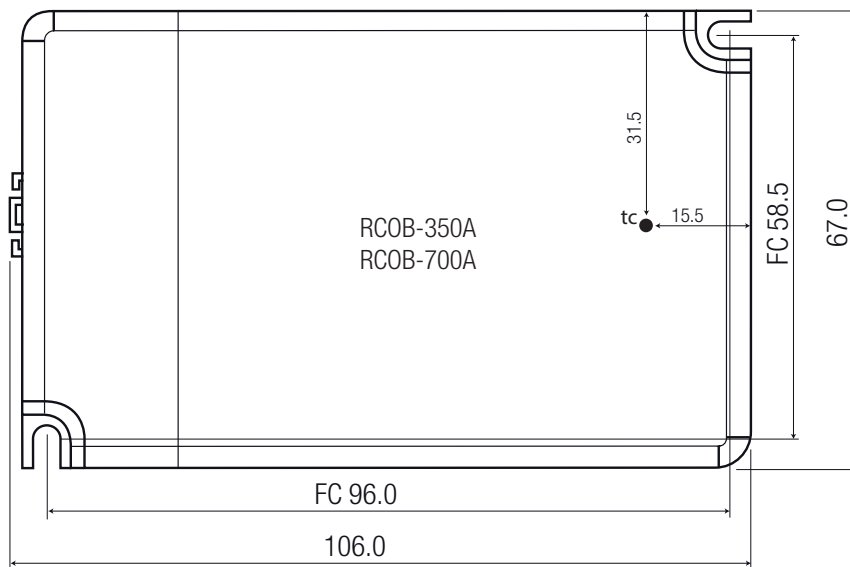
**SAFETY AND CERTIFICATIONS**

Certificate Type		Standard
CE General Safety	compliant	EN-61347-1
CE Safety of AC supplied Control Gear for LED Modules	compliant	EN-61347-2-13
RoHS	compliant	RoHS 6/6
Certificate Type (Environmental)		
Electric Lighting, EMC Immunity	compliant	EN-61547
Electric Lighting, EMC Emissions	compliant	EN55015, Class B
Limits for Harmonic Emissions		EN-61000-3-2
EMC Compatability: Flicker and Voltage Variations	compliant	EN-61000-3-3
IP Rating		IP20

**DIMENSIONS and PHYSICAL CHARACTERISTICS**

Case Material	integrated cable clamps, Plastic	
Package Dimensions (LxWxH)	RCOB-350A; RCOB-700A RCOB-1050A	106 x 67 x 22mm 121.7 x 78 x 22mm
Package Weight	RCOB-350A; RCOB-700A RCOB-1050A	130g 180g
Packaging Dimension (LxWxH)	12.5 x 8.2 x 3.8	
Packaging Quantity	10pcs	

**Mechanical Dimensions**



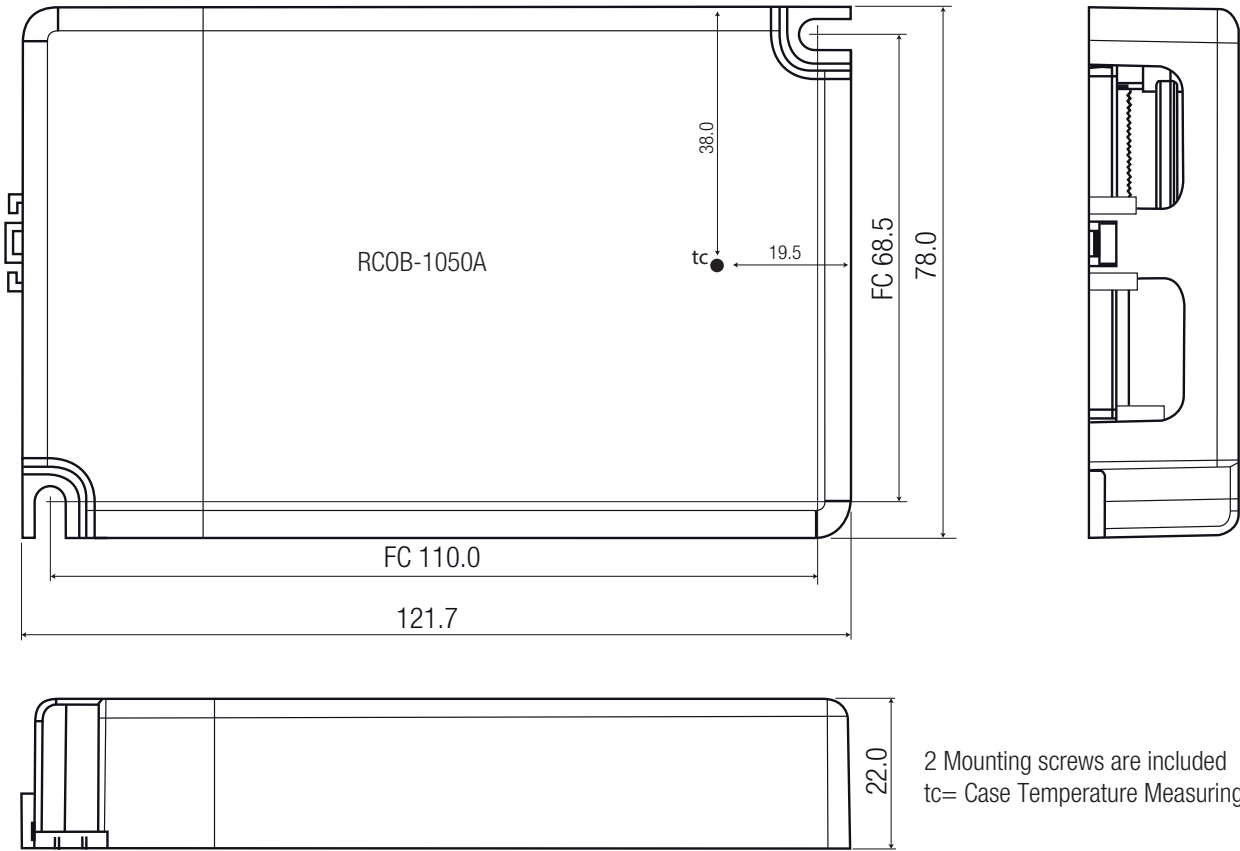
2 Mounting screws are included  
tc= Case Temperature Measuring Point

Tolerance: ±0.5mm  
FC: fixing center

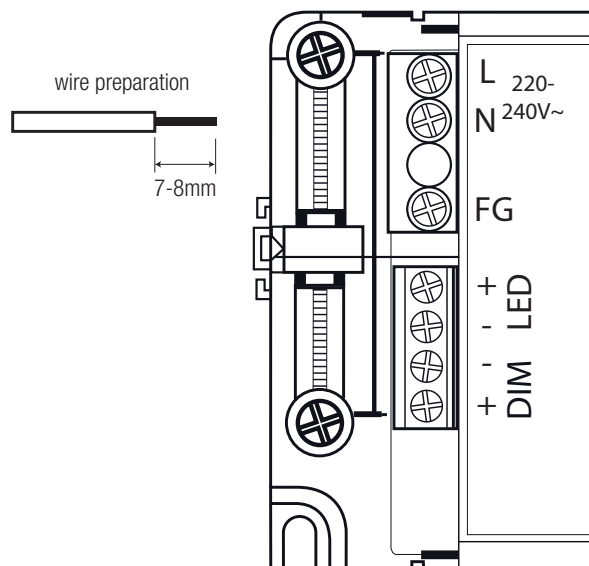
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Specifications (measured at  $T_A = 25^\circ\text{C}$ , nominal input voltage, rated load)

**Mechanical Dimensions**



**Wiring Diagram**



Tolerance:  $\pm 0.5\text{mm}$   
FC: fixing center

The product information and specifications are subject to change without prior notice. All products are designed for non-safety critical commercial and industrial applications. The buyer agrees to implement safeguards that anticipate the consequences of any failures that might cause harm, loss of life and/or property damage.