

Features

LED Driver

- Low Cost 230VAC LED Power Supply
- 350mA to 1050mA Output, 25-44VDC
- Active Power Factor Correction >0.95
- 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 COB LED drivers are available with eleven preset output currents between 350mA and 1050mA. They are designed to drive COB (Chip On Board) high power LEDs with a forward voltage between 25V and 44VDC from a 230VAC supply (198-264VAC). They operate with efficiencies of up to 90%, feature active PFC and are fully protected against short circuit, output overvoltage, open-circuit and over-temperature conditions. The LED drivers are suitable for both independent and built-in installations and for installations inside furniture.

Selection Guide

Part Number	Input Voltage Range (VAC)	Output Current (mA)	Efficiency typ. (%)	Rated Power (W)
RCOB-350	198-264	350	87	15
RCOB-400	198-264	400	87	17
RCOB-450	198-264	450	88	20
RCOB-500	198-264	500	88	22
RCOB-550	198-264	550	88	24
RCOB-600	198-264	600	89	26
RCOB-650	198-264	650	89	28
RCOB-700	198-264	700	89	31
RCOB-800	198-264	800	90	35
RCOB-900	198-264	900	90	40
RCOB-1050	198-264	1050	90	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	25VDC		44VDC
absolute max. Output Voltage	full load			56VDC
Inrush Current	at 230VAC		8A / 10µs	
Start-up Time	at 230VAC			1 Second
Input Frequency		47Hz	50Hz	63Hz
Efficiency		see Selection Guide		
Output Current Accuracy	low line to high line, full load		±8%	
Power Factor	full load, 230VAC		0.95	

continued on next page

RCOB

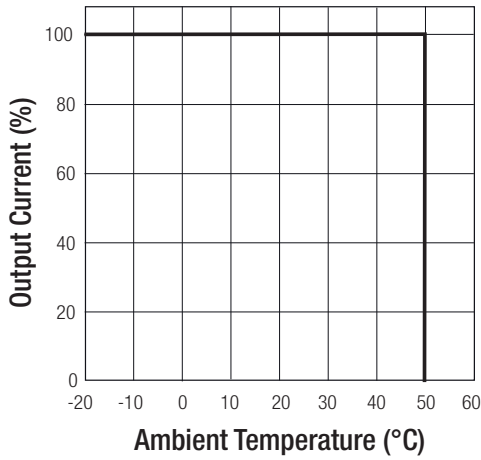
Constant Current
Active PFC
Single Output



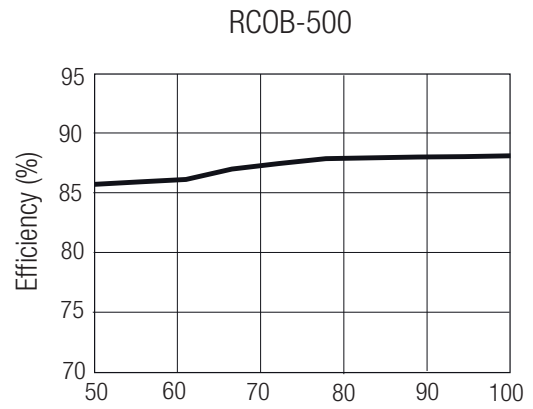
EN-61347-1 Compliant
EN-61347-2-13 Compliant
EN-55015 Compliant
EN-61547 Compliant
EN-61000-3-2 Compliant
EN-61000-3-3 Compliant

Refer to Applications Notes

Derating Graph



Efficiency



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	56V 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
Input Fuse	Standard	T1A

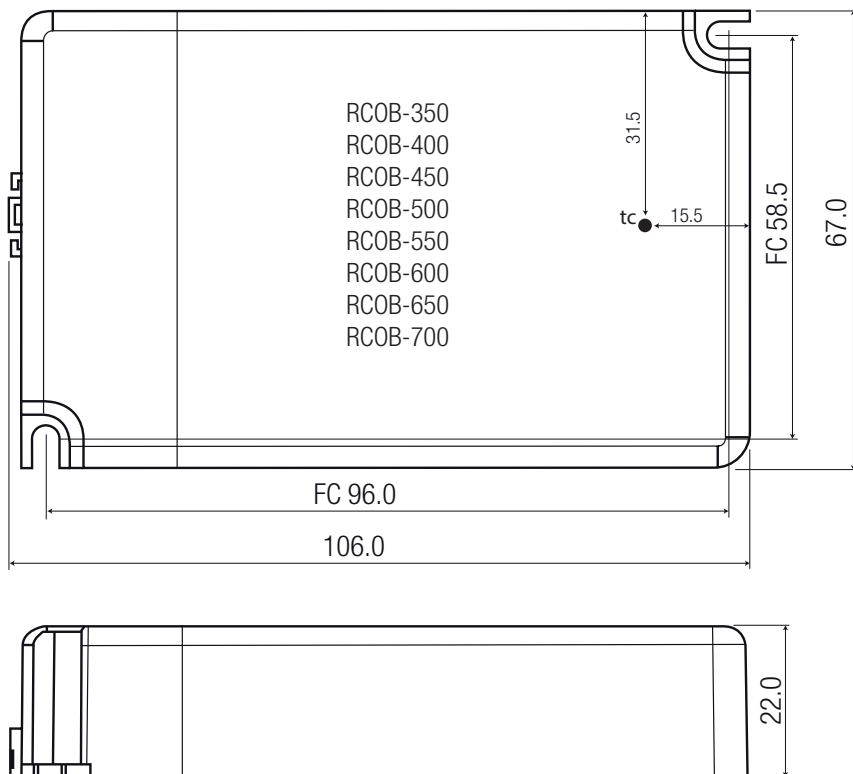
ENVIRONMENTAL		
Parameter	Condition	Value
Operating Temperature Range max. Case Temperature Range	all Types	-20°C to +50°C, Ambient
	RCOB-350 to -500	80°C max.
	RCOB-550 to -700	85°C max.
	RCOB-800 to -1050	90°C max.
Storage Temperature Range		-30° to +80°C, Ambient
Storage Humidity		30% - 95% RH
Operating Humidity	RCOB-800 to -1050	45% to 85% RH
	RCOB-350 to -700	5% to 85% RH, non condensing
MTBF	at Ta= 80°C	50 x 10 ³ hours

Specifications (measured at $T_A= 25^\circ\text{C}$, 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-350 to -700	106 x 67 x 22mm
	RCOB-800 to -1050	121.7 x 78 x 22mm
Package Weight	RCOB-350 to -700	108g
	RCOB-800 to -1050	165g
Packaging Dimension (LxWxH)		12.5 x 8.2 x 3.8
Packaging Quantity		10pcs

Mechanical Dimensions



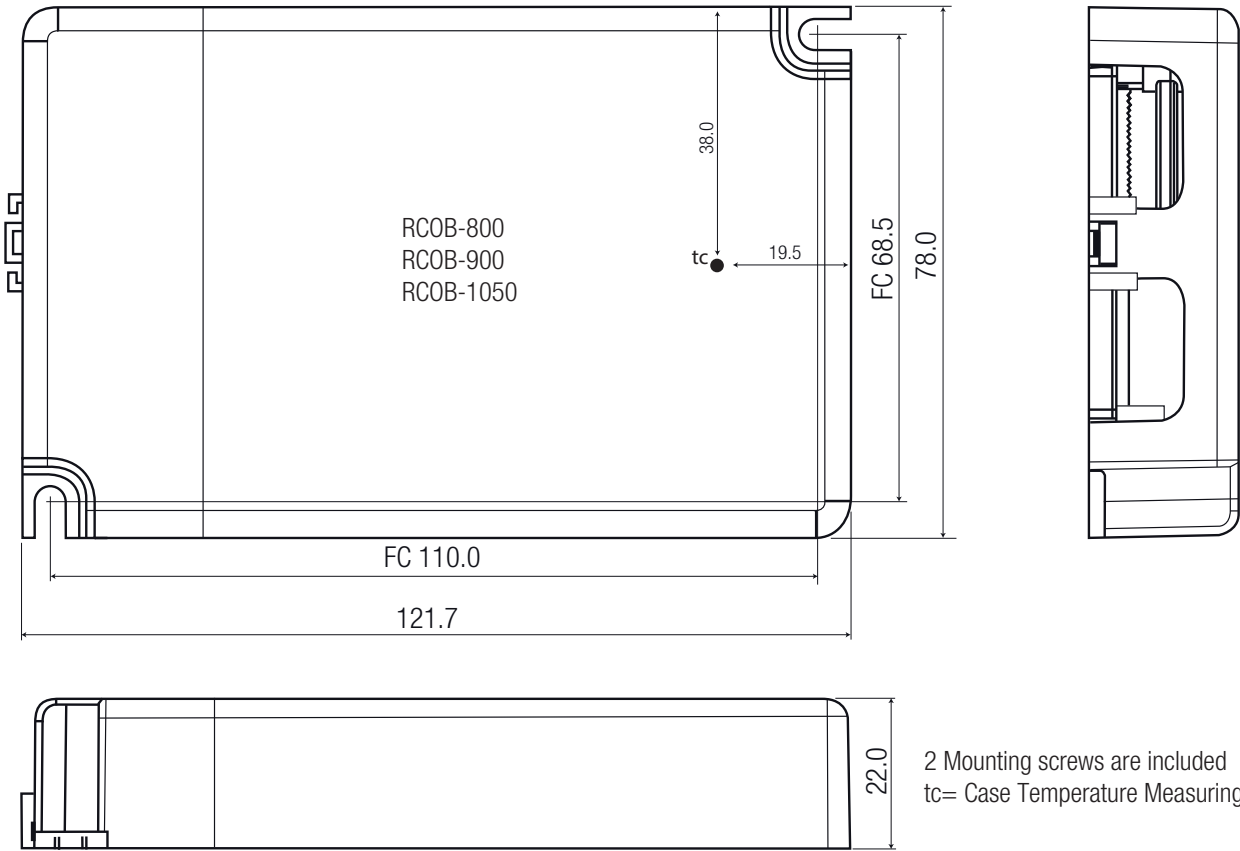
2 Mounting screws are included
tc= Case Temperature Measuring Point

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

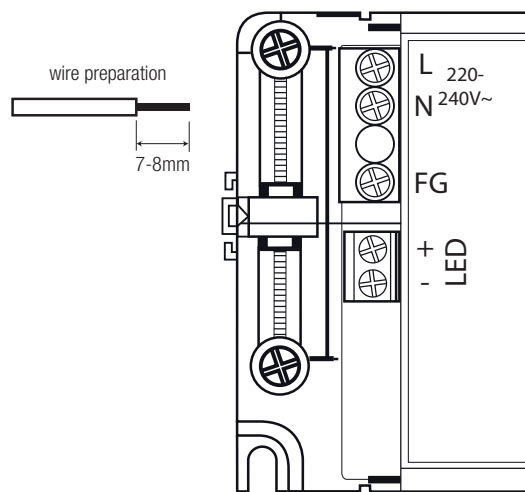
continued on next page

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.