

Features

LED DRIVER

- 20W Dimmable AC-DC LED Power Supply
- 350mA, 500mA, 700mA or 1050mA Outputs
- ENEC, UL, RCM and CB Certified
- Deep Dimming to 0% *
- Active Power Factor Correction >0.95
- 3.75kVAC Isolation
- Output Connector to avoid miswiring
- 5 Year Warranty

Description

The RACT20 series is a constant current dimmable AC/DC source for driving high power LED applications. The phase angle dimming function works with leading or trailing edge dimmers. This driver is suitable for indoor LED lighting systems and powers 5-15 high power LEDs or single LED arrays from 350mA up to 1A.

Selection Guide

Part Number	Input Voltage (VAC)	Output Current (mA)	Output Voltage (VDC)	Dimming Control	Efficiency typ. (%)	Max. # LEDs
RACT20-350	230	350	30-56	Triac	82	15 x 1W
RACT20-500	230	500	21-39	Triac	82	12 x 1W
RACT20-700	230	700	15-28	Triac	81	8 x 2W, 8+8 x 1W
RACT20-1050	230	1050	12-18	Triac	81	5 x 3W, 5+5 x 2W
RACT20-350-US	115	350	30-56	Triac	82	15 x 1W
RACT20-500-US	115	500	21-39	Triac	82	12 x 1W
RACT20-700-US	115	700	15-28	Triac	81	8 x 2W, 8+8 x 1W
RACT20-1050-US	115	1050	12-18	Triac	81	5 x 3W, 5+5 x 2W

Specifications (typical at 25°C, nominal input voltage, rated output current unless otherwise specified)

Input Voltage Range	RACT20-xxxx RACT20-xxxx-US	180-264VAC 90-135VAC
Rated Power		20W max.
Output Current Accuracy		±5% max.
Input Current	115VAC 230VAC	0.4A max. 0.2A max.
Input Frequency Range		47-63Hz
Power Factor	Full Load	>0.95
THD	Full Load, 115VAC Full Load, 230VAC	8% max. 11% max.
Leakage Current		<0.75mA
Open Circuit Voltage (No Load V _{out})	350mA 500mA 700mA 1050mA	60VDC max. 44VDC max. 33VDC max. 22VDC max.
Output Ripple and Noise	350mA, 500mA 700mA, 1050 mA	4.5Vp-p max. 4.0Vp-p max.
Short Circuit Protection		Hiccup mode, Auto recovery
Overtemperature Protection	95°C ±10°C (RT1)	Hiccup mode, Auto recovery
Isolation Voltage	1 minute	3750VAC
Efficiency at Full Load		see selection guide
Dimming	AC phase-cut dimming, work with leading/trailing edge dimmers	
Operating Temperature (Ambient Temperature)		-30°C to +50°C
Storage Temperature		-40°C to +85°C
Relative Humidity		95% RH
EMC	design refer to EN55022	Class B
IP Rating	suitable for indoor LED lighting system	IP20
Design Lifetime	25°C ambient	>70 x 10 ³ hours in operation
Package Weight		145g
Packing Quantity		1 pc.
PCB Material		Plastic Resin with Fibreglass (UL94V-0)
Case Material		Plastic
Connections	AC Input LED Output LED Output	Screw Terminal Screw Terminal 5.5mm Socket with 2mm Pin (suitable matching plug Switchcraft S760 or similar)**

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

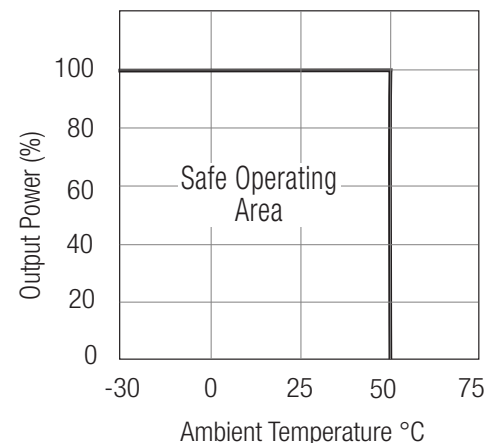
20W Triac Dimmable LED Driver



UL-8750 certified
UL-60950-1 certified
European Version only:
ENEC 61347 certified

RACT20

Derating Graph



Please Read Application Notes

Specifications

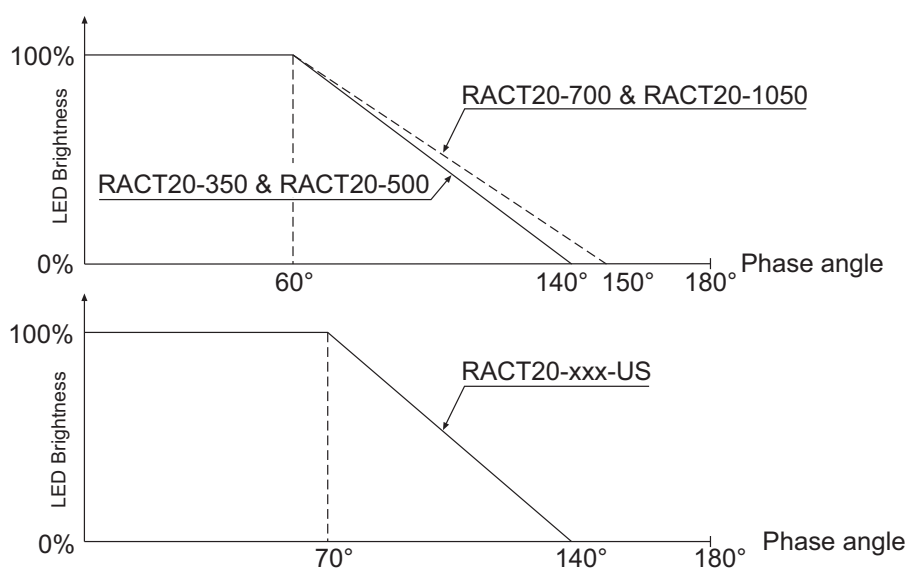
Designed to meet Standards	ENEC Lamp Controlgear	EN61347-2-13:2006 EN61347-1:2008 EN55015:2006 + A2:2009 EN 61000-3-2:2006 + A2:2009 EN 61000-3-3:2006 EN 61547:2009 AS/NZS 61347.1:2002, IEC 61347-2-13 FCC15B
	Electrical Lighting, EMC Emissions Limits for Harmonics Emissions EMC Compatibility: Flicker and Voltage Variations Electrical Lighting: EMC Immunity RCM (21377) FCC	
Certifications	LED Lighting Safety (E340696) Information Technology Equipment - Safety	UL8750 UL60950-1 CAN/CSA C22.2 No. 60950-1-07

*The triac dimmer must be capable of dimming down to zero

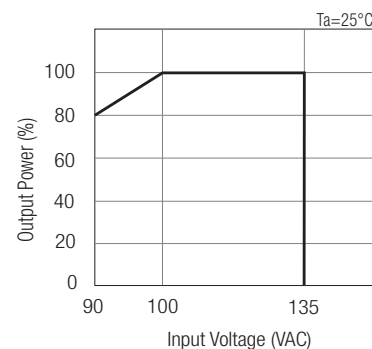
** Do not connect or disconnect the LED load while the driver is on. This may damage the LED or reduce its life.

Characteristics

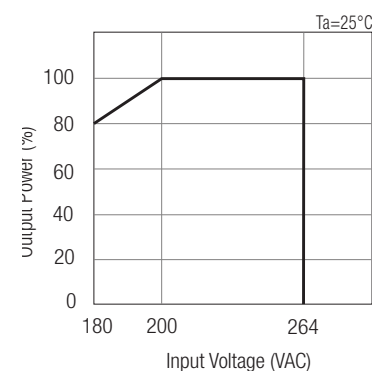
Dimming Response



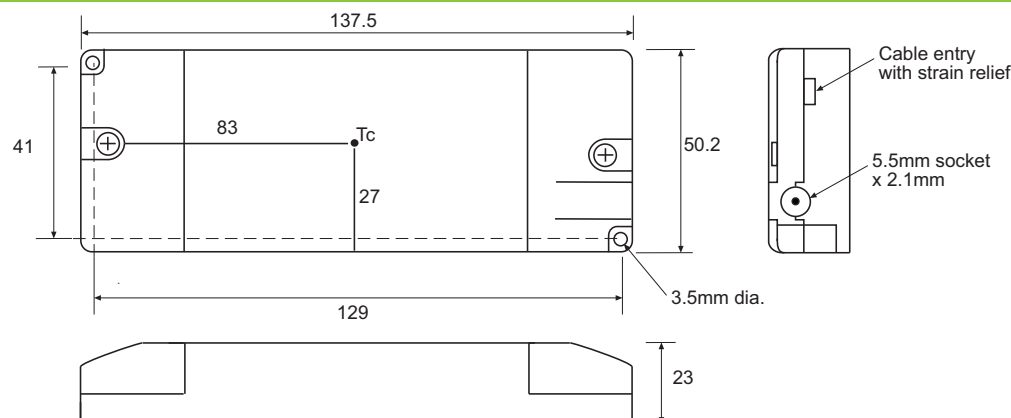
115VAC - Version



230VAC - Version



Package Style and Pinning



Connections

CN1	Function
L	VAC in (L)
N	VAC in (N)
CN2	Function
+	LED+
-	LED-
5.5mm Socket*	Function
Pin	LED+
Shell	LED-

Tolerance
XX = +/-1mm
XX.X = +/-0.5mm