

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		3.75kVAC / 1 minute
Efficiency at Full Load		see selection guide
Dimming		AC phase-cut dimming, work with leading/trailing edge dimmers
Operating Temperature Range (free air convection, according to CE/UL)	Ambient Temperature Case Temperature	-30°C to +50°C 85°C max.
Operating Temperature Range (free air convection, according to ENEC)	Ambient Temperature Case Temperature	-30°C to +50°C 80°C max.
Storage Temperature		-40°C to +85°C
Relative Humidity		95% RH
EMC	design refer to EN55022	Class B
IP Rating	suited 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

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

20W Triac Dimmable LED Driver



UL-8750 certified

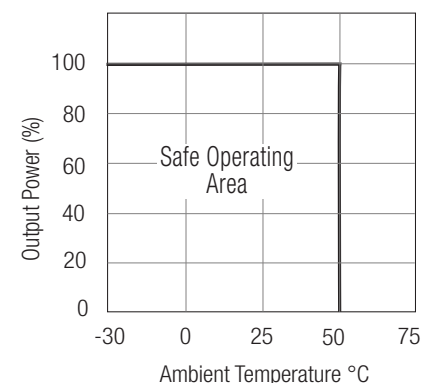
UL-60950-1 certified

European Version only:

ENEC 61347 certified

RACT20

Derating Graph



Please Read Application Notes

LIGHTLINE

DC/DC-Converter

RACT20

Series

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

Connections	AC Input LED Output LED Output	Screw Terminal Screw Terminal 5.5mm Socket with 2mm Pin (suitable matching plug Switchcraft S760 or similar)
Standards	ENEC Lamp Controlgear Electrical Lighting, EMC Emissions Limits for Harmonics Emissions EMC Compatibility: Flicker and Voltage Variations Electrical Lighting: EMC Immunity RCM (21377) FCC	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
Certifications	LED Lighting Safety (E340696) Information Technology Equipment - Safety	UL8750 UL60950-1 CAN/CSA C22.2 No. 60950-1-07

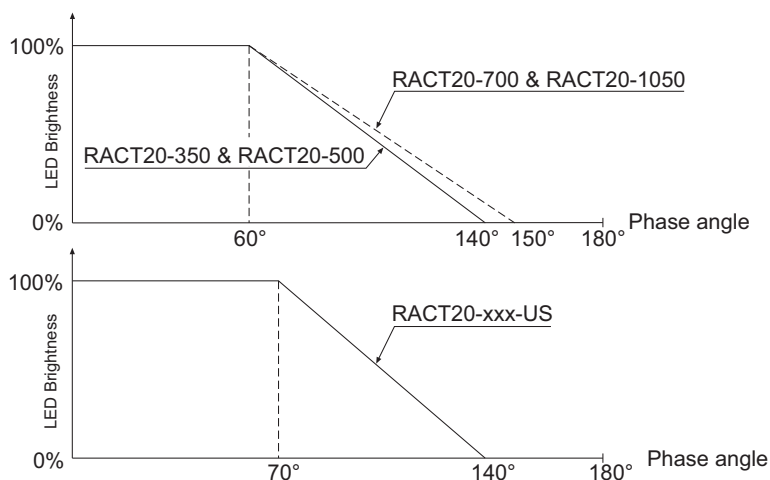
*The triac dimmer must be capable of dimming down to zero

Note:

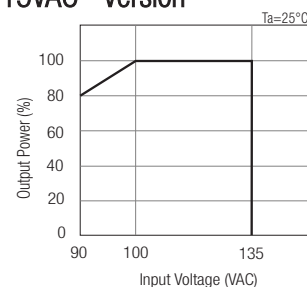
All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Characteristics

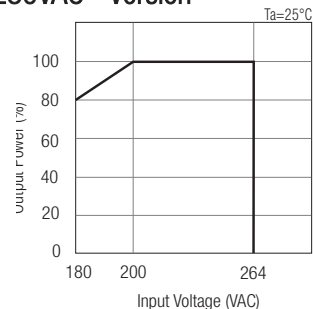
Dimming Response



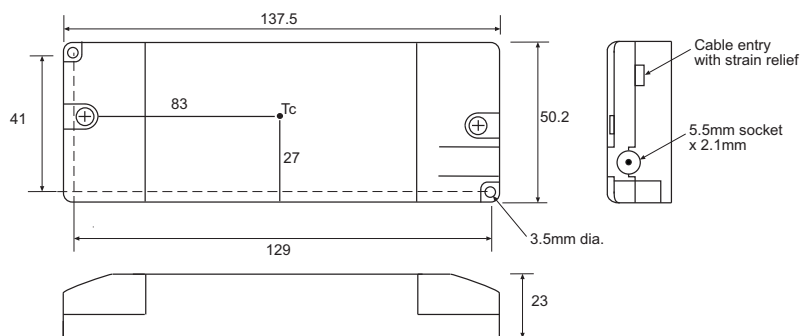
115VAC - Version



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

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 damage property.