

Features

LED DRIVER

- Constant Current Operation
- Suitable for High Brightness LED Products
- Built-In Active PFC Function
- Overvoltage-, Short Circuit- and Over-temperature Protection
- Built-In 3 in 1 Dimming
- IP67 Rated
- Class 2 Power Unit UL1310

Selection Guide

Part Number	Output Voltage (VDC)	Rated Power (W)	Rated Current (mA)	Output Voltage Range (V)	Efficiency (typ.)
RACD45-700A	57	10	70 - 700	10 - 57	87%
RACD45-1050A	48	48	105 - 1050	33 - 48	87%
RACD45-1250A	36	45	125 - 1250	24 - 36	86%
RACD45-1850A	24	45	185 - 1850	15 - 24	85%

NOT RECOMMENDED FOR NEW DESIGNS

Specifications (measured at 230VAC and 25°C ambient temperature)

Input Voltage Range	90-305 VAC	
Input Frequency Range	47-63Hz	
Power Factor (Full Load)	120VAC	>0.98
	240VAC	>0.93
	277VAC	>0.90
THD	Full Load, 115VAC	13% max.
	Full Load, 230VAC	19% max.
DC Dimming	Open = 100%	DC 1-10V
PWM Dimming	Open = 100%	Duty 10% - 100%
	Freq.	500Hz - 3000Hz
	Voltage	Hi=10V, Low=0V
Resistance Dimming	10K - 100K Ω	
Current Accuracy	$\pm 5\%$	
AC Input Current	100-240VAC	0.6A
	277VAC	0.25A
Inrush Current (Cold Start)	240VAC	70A
Leakage Current	<0.5mA / 240VAC	
Start-up Time (at Full Load)	<2sec	
Isolation Voltage	3.75kVAC / 1 minute	
Short Circuit Protection	Hiccup	
Over Voltage Protection	24V	26.4 - 31.2V
	36V	39.6 - 46.8V
	48V	52.8 - 62.4 V
	57V	62.7 - 70V
Over Temperature Protection	Latch Mode	105 \pm 10°C
Vibration	10-500Hz, 2G, 60Min. along X, Y and Z	
Storage Humidity	10% - 90% RH	
Operating Humidity	20% - 90% RH Non-Condensing	
Weight	420g	
Operating Temperature	-30°C to +50°C	
Storage Temperature	-40°C to +60°C	
Ripple & Noise (at 20MHz bandwidth using 0.1uF & 47uF capacitor)	24V	200mV
	all others	250mV
IP Rating	IP67	
Isolation Resistance	100M Ω / 500VDC at 25°C	
Dimension (L*W*H)	179*45.1*32.5mm	

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LIGHTLINE
AC/DC-Converter
with 5 year Warranty

RECOM

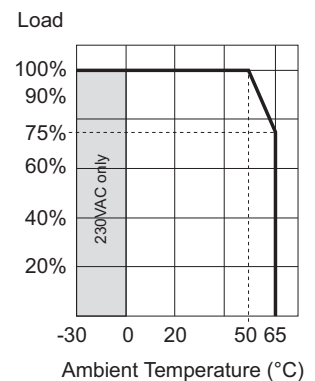
45 Watt PFC
Single
Output



EN 61347-1 Certified
EN 61347-2-13 Certified
UL8750 Certified

RACD45-A

Derating-Graph
(Ambient Temperature)



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.

Refer to Application Notes

Specifications (measured at 230VAC and 25°C ambient temperature)

Safety Standards	LED Lighting Safety	Report: E340696	UL8750
	LED Lighting Safety (Canada)	Report: E340696	cUL8750
	Class 2 Power Supply Safety	Report: E340696	UL1310
	Extra Low-Voltage Class 2 Output	Report: E340696	CSA C22.2 No. 223-M91
	LED equipment for lighting application	Report: E340696	CSA C22.2 No. 250.13-12
			EN61347-1
			EN61347-2-13
			EN61000-3-2 Class C
			EN61000-3-3
			EN61000-4-2,3,4,5,6,8,11
			EN61547
			EN55015 FCC15
Design Lifetime			70 x 10 ³ hours max.
MTBF (+25°C)	using MIL-HDBK 217F		200 x 10 ³ hours min.

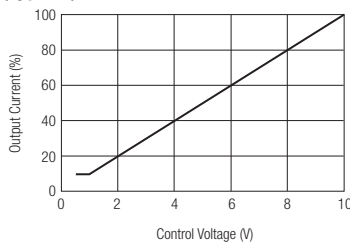
3 in 1 Dimming Control (DC / PWM / Resistance)

10K-100K Resistor Dimmable (Typical):

Resistor	Single-Driver	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K
	Multi-Driver	10K/N	20K/N	30K/N	40K/N	50K/N	60K/N	70K/N	80K/N	90K/N	100K/N
	out (%)	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

The length of extended wire for DIM+/- shall not exceed 20 meters. (wire ≤ 20m)
N = The number of dimmer drivers should not exceed 15. (N ≤ 15mS)

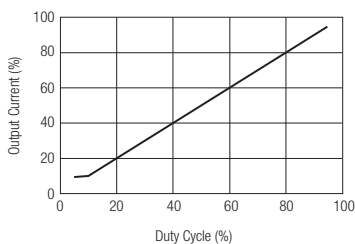
DC: 1-10V Dimmable (Typical)



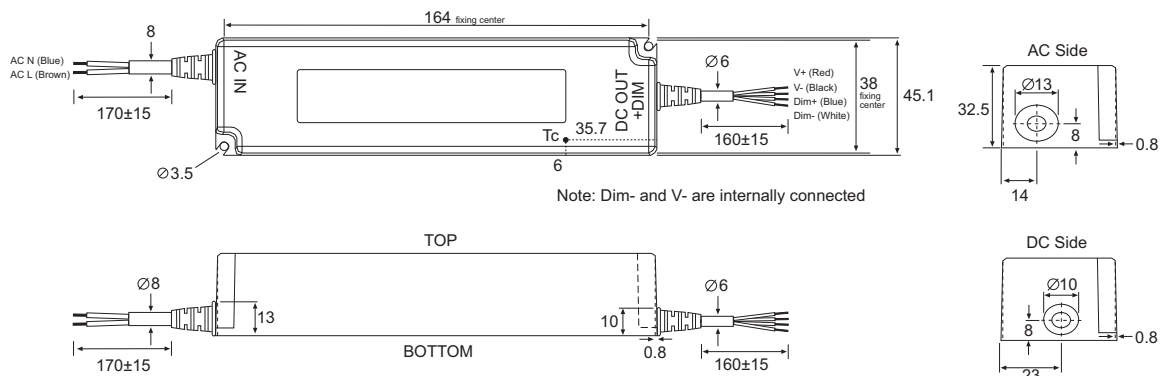
Maximum Number of LED drivers per circuit breakers

Condition	Circuit Breaker	Circuit Breaker Current			
		10A	16A	20A	25A
115VAC, 10hm 90° phase angle	Typ				
	C	16	28	31	43
230VAC, 10hm 90° phase angle	B	17	28	33	41
	C	24	39	47	57
277VAC, 10hm 90° phase angle	B	20	32	38	47
	C	28	44	54	66

DC: 10V / PWM Dimmable (Typical)



Package Style & Pinning



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