



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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	40	70 - 700	40 - 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%

### 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	±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 ± 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	100MΩ / 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**

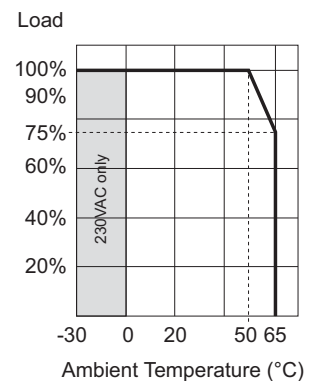
# 45 Watt PFC Single Output



**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 <sup>3</sup> hours max.
MTBF (+25°C)	using MIL-HDBK 217F		200 x 10 <sup>3</sup> hours min.

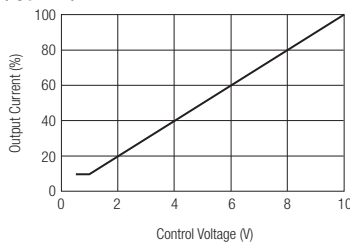
### 3 in 1 Dimming Control (DC / PWM / Resistance)

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)

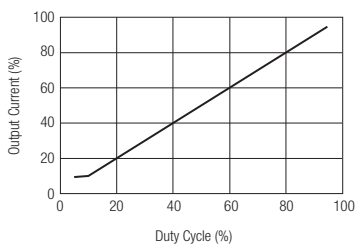
#### DC: 1-10V Dimmable (Typical)



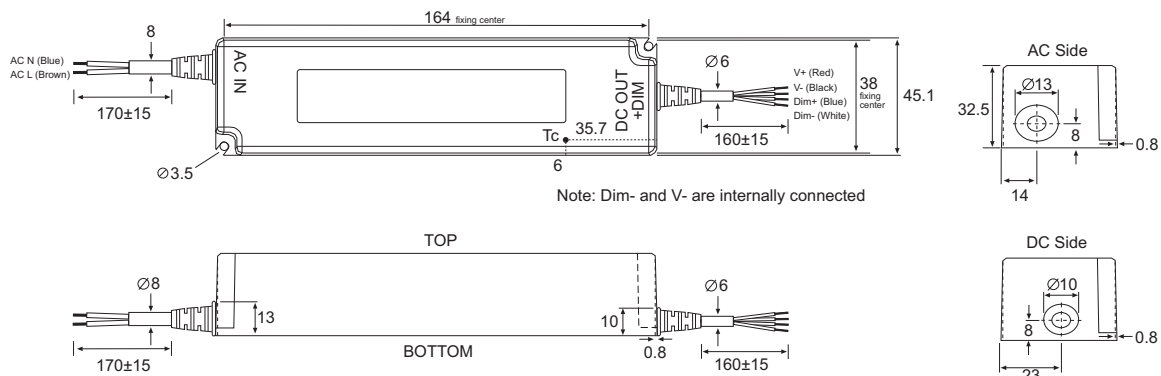
#### Maximum Number of LED drivers per circuit breakers

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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