

SERIES: PLDA50 | **DESCRIPTION:** LED DRIVER

FEATURES

- up to 50 W continuous power
- universal input range (90~264 Vac)
- dual output
- power factor correction ≥ 0.9
- constant current
- low profile for easy installation
- over voltage, and continuous short circuit protection
- UL 8750, IEC/EN61347-2-13 approval
- EN61000-3-2 Class C (harmonic current) approval
- efficiency up to 86%
- suitable for LED lighting and signage applications



MODEL	output voltage range ¹		output current (mA)	output power max (W)	ripple and noise ² max (mVp-p)	efficiency typ (%)
	min (Vdc)	max (Vdc)				
PLDA50-D600-240	18	42	Io1 600 Io2 600	25.2 25.2	300	86
PLDA50-D1000-240	8	24	Io1 1000 Io2 1000	24 24	300	85

Notes: 1. Constant current region
 2. Ripple and noise measured at full load, 100 Vac input, 20 MHz bandwidth with a 0.1 uF ceramic capacitor across the output. $V_o = 36$ Vdc for PLDA50-D600-240 and 21 Vdc for PLDA50-D1000-240.

PART NUMBER KEY

PLDA50 - DXXXX - 240

Base Number

Output Current

Input Voltage
 240 = (90~264 Vac)

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		50		60	Hz
current	at 100 Vac, full load			0.65	A
inrush current	at 230 Vac, cold start, 25°C, after 400 μ s			5	A
leakage current	at 230 Vac			3.5	mA
power factor correction	at 100 Vac/230 Vac, 85~100% load	0.9			

OUTPUT

parameter	conditions/description	min	typ	max	units
current line regulation	measured from high line to low line			\pm 5	%
current load regulation	measured from max. to min. of constant current region			\pm 5	%
constant current accuracy				\pm 5	%
start-up time	at 100 Vac			1.6	s
temperature coefficient			\pm 0.03		%/°C

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	TVS clamp				
short circuit protection	hiccup mode, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute input to ground for 1 minute			3,750 1,500	Vac Vac
isolation resistance	input to output	100			M Ω
safety approvals	UL8750, IEC/EN61347-1, IEC/EN61347-2-13, PSE				
EMI/EMC	EN55022/EN55015 Class B, EN61547, EN61000-4-(2,3,4,5,6,8,11), EN61000-3-2 Harmonic Class C, EN61000-3-3				
MTBF	as per MIL-HDBK-217F, at 25°C		200,000		hours
RoHS	2011/65/EU				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-40		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	10		80	%
operating altitude				3,000	m
vibration	0~500 Hz, 60 min. along each X, Y, and Z axes		2		G

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	300 x 36.1 x 24.5				mm
weight			230		g

MECHANICAL DRAWING

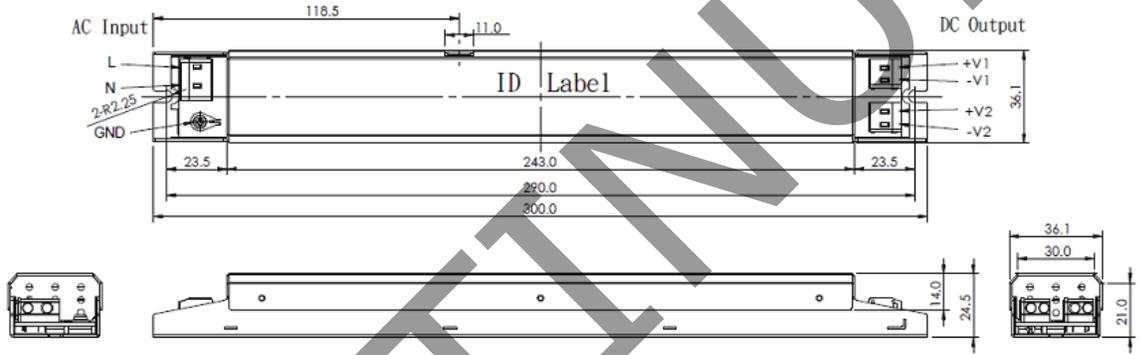
units: mm
 tolerance: x.x = ±0.5
 x.xx = ±0.25
 unless otherwise specified

wire range: 20~14 AWG

CN1	
Pin	Function
1	ACL
2	ACN

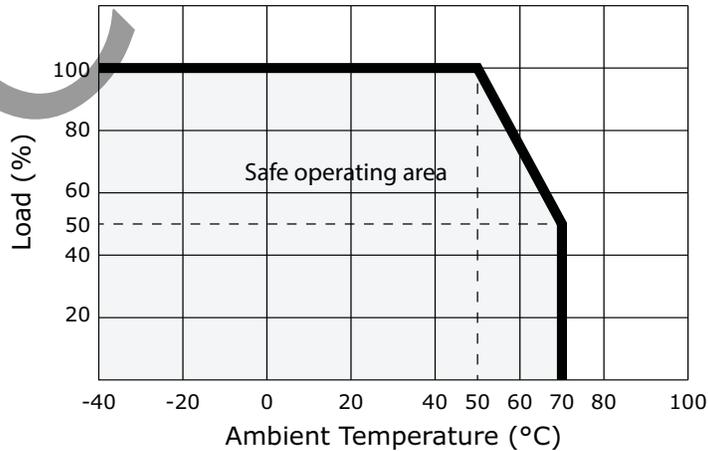
CN2	
Pin	Function
1	+V1
2	-V1

CN3	
Pin	Function
1	+V2
2	-V2



DERATING CURVES

Temperature Derating Curve



Note:

- CN1: WAGO 235-502 or equivalent
- CN2 & CN3: WAGO 235-402 or equivalent
- All specifications are measured at Ta=25°C, 115/230 Vac input voltage, and full load unless otherwise specified.

REVISION HISTORY

rev.	description	date
1.0	initial release	09/16/2014

The revision history provided is for informational purposes only and is believed to be accurate.



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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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