



# CLD50 SERIES

## 50 WATT DUAL OUTPUT

### LED POWER SUPPLY



## Features

- \* Universal AC Input Range 90-264Vac
- \* High Active PFC >0.9
- \* Low Inrush Current <5A
- \* Low Profile for Easy Installation
- \* Low Flicker for Lighting, with Low ripple & noise
- \* Output Constant Current Design
- \* Continuous Short Circuit Protection
- \* Suitable for LED Lighting and Moving Sign Applications
- \* Safety meet IEC/EN61347, PSE



MODEL	Input Voltage Range	Output Operating Voltage		Output Rated Current	Output Rated Power	Output Voltage Maximum	Ripple and Noise (max.) Note2	Efficiency (Typical) Note3
CLD50D240 -C100	90-264Vac	V1	8-24VDC	1000mA	24W	30VDC	300mVpp	85%
		V2	8-24VDC	1000mA	24W	30VDC	300mVpp	
CLD50D420 -C060	90-264Vac	V1	18-42VDC	600mA	25.2W	48VDC	300mVpp	86%
		V2	18-42VDC	600mA	25.2W	48VDC	300mVpp	

#### Note:

1. Nominal Input Voltage: 100Vac, 230Vac
2. Ripple and Noise are measured at rated current, 100Vac,  $V_o=36Vdc$ (CLD50D420), 21V(CL D50D240) and 20MHz bandwidth with a 0.1uF ceramic capacitor.
3. Measured at rated current, 100Vac,  $V_o=36Vdc$ (CLD50D420), 21Vdc(CL D50D240)

## Specifications

All specifications are Typical at nominal line, full load and 25°C unless otherwise noted

### INPUT SPECIFICATIONS:

AC Input Voltage ..... 90~264Vac  
 Frequency ..... 50 to 60Hz  
 Power Factor ..... 100Vac/220Vac ..... PF $\geq$ 0.9 at 85%~100% Load  
 Inrush Current ..... 230Vac ..... Cold start ..... 20A max.  
 After 400us <5A  
 Leakage Current ..... 3.5mA max.

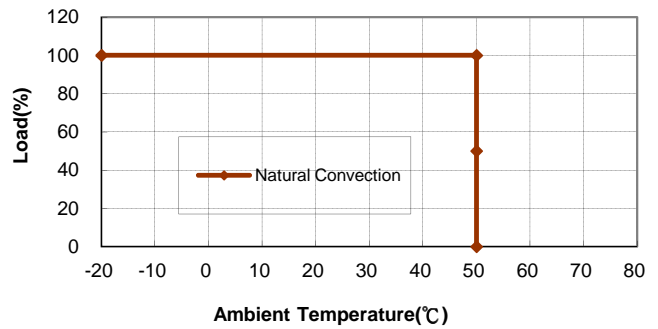
### OUTPUT SPECIFICATIONS:

Maximum Output Voltage ..... (note1) ..... See Table.  
 Constant Current Accuracy .....  $\pm$ 5% max.  
 Current Line Regulation ..... (note 2) .....  $\pm$ 5% max.  
 Current Load Regulation ..... (note 3) .....  $\pm$ 5% max.  
 Over Voltage Protection ..... Voltage Clamp by TVS  
 Short Circuit Protection ..... Constant Current with Auto Recovery  
 Start up time ..... 100Vac ..... 1.6 second max.

### GENERAL SPECIFICATIONS:

Efficiency ..... See Table  
 Temperature Coefficient .....  $\pm$ 0.03%/°C (0~50°C)  
 Isolation voltage Input to output ..... 3.75KVac  
 Input to Ground ..... 1.5KVac  
 Isolation resistance Input to output ..... 10<sup>8</sup> $\Omega$   
 Operating Ambient Temperature ..... -20 ~ 500  
 Cooling ..... Natural Convection  
 Storage Temperature ..... -40 ~ 85°C  
 Operating Humidity ..... 10%~80%RH Non-Condensing  
 Operating Altitude ..... Sea Level to 10000feet  
 Vibration ..... 0~500Hz, 2G 60min./1cycle, period for 3hours, 3 axes  
 Shock ..... 30g peak, half sine, 6 axes  
 MTBF, MIL-HDBK-217F (25°C) ..... 200Khrs typ.

## CLD50 Derating Curve



### SAFETY AND EMISSIONS:

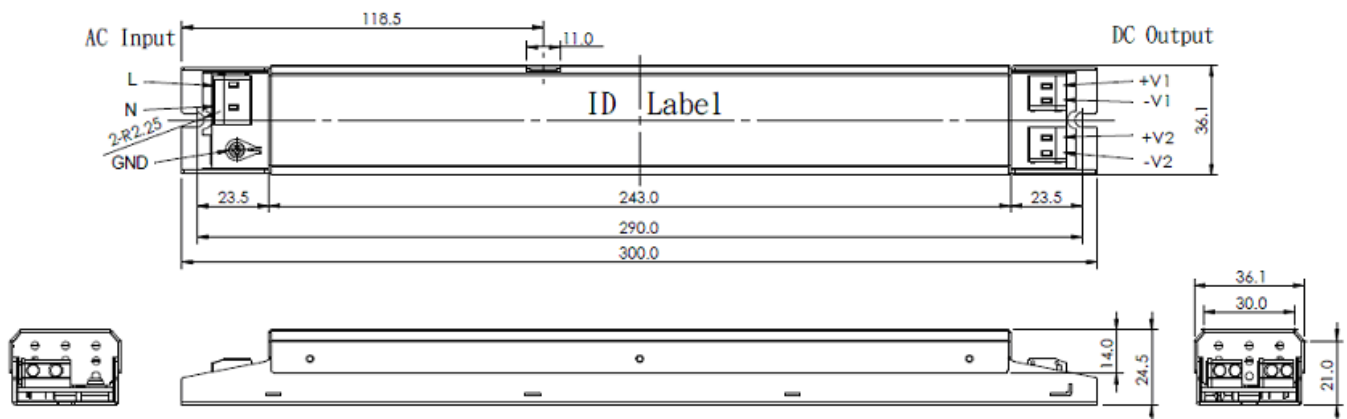
Safety meet ..... UL8750, IEC/EN61347-1  
 IEC/EN61347-2-13  
 EMI ..... EN55022/EN55015 Class  
 EMS ..... EN61547, EN61000-4-2,3,4,5,6,8,11  
 EN61000-3-2 Harmonic  
 Dimensions ..... 300x36.1x24.5 mm  
 Weight ..... 230g  
 Case Material ..... Aluminum

### NOTE:

1. Output voltage is measured at no load.
2. Current line regulation is measured from high line to low line.
3. Current load regulation is measured from high to low operating voltage.

## Mechanical Specification

All Dimensions In mm  
 Tolerance Millimeters: x.x=  $\pm$ 0.5, x.xx=  $\pm$ 0.25



Input Connector: WAGO 235-502 2Pin or Equivalent  
 Output Connector: WAGO 235-402 2Pin or Equivalent