# **LZWCD240** Series



#### 240W, 90~305Vac Input, Constant Current LED Driver



### Features

- Power Rating: 240W
- Input Voltage: 90~305Vac
- Constant current design
- Fixed output current(700mA-4200mA)
- Dimmable 0-10V, PWM, and resistor (optional)
- Efficiency to 93%
- UL Class 2
- OTP, SCP, OVP, and lightning protection
- IP67

### Application

- Outdoor applications: Street lights, and high bays.
- **Model List**\*(See part number scheme for model number details)



IP67 ( CBCE

\*Product images are for illustrative purposes only and may vary from actual design.

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
LZWCD240S070ST	90~305Vac	240W	206-343V	700mA	700mA	93%	CE FCC UL
LZWC-240S070ST	90~305Vac	240W	206-343V	700mA	700mA	93%	CE FCC UL
LZWCD240S105ST	90~305Vac	240W	137-229V	1050mA	1050mA	93%	CE FCC UL
LZWC-240S105ST	90~305Vac	240W	137-229V	1050mA	1050mA	93%	CE FCC UL
LZWCD240S140ST	90~305Vac	240W	103-171V	1400mA	1400mA	93%	CE FCC UL
LZWC-240S140ST	90~305Vac	240W	103-171V	1400mA	1400mA	93%	CE FCC UL
LZWCD240S210ST	90~305Vac	240W	69-114V	2100mA	2100mA	92%	CE FCC UL
LZWC-240S210ST	90~305Vac	240W	69-114V	2100mA	2100mA	92%	CE FCC UL
LZWCD240S280ST	90~305Vac	240W	51-86V	2800mA	2800mA	92%	CE FCC UL
LZWC-240S280ST	90~305Vac	240W	51-86V	2800mA	2800mA	92%	CE FCC UL
LZWCD240S420ST	90~305Vac	240W	34-57V	4200mA	4200mA	92%	CE FCC UL
LZWC-240S420ST	90~305Vac	240W	34-57V	4200mA	4200mA	92%	CE FCC UL

Note: "-" = Non-Dimming, D=Dimming

### Technical Data

Input voltage range	90~305Vac					
Frequency	47~63Hz					
Power factor	>0.9@60-100% load, refer to PF vs Load curve					
Max input current	1.8A max. @110Vac & full load; 0.9A max. @220Vac & full load					
THD	<15%@60-100% load, refer to THD vs Load curve					
Inrush current	65A peak, 1.2ms duration@230Vac 25°C					
	70A peak, 1.3ms duration@277Vac 25°C					
Lookago ourront	1mA max. @277Vac 60Hz					
Leakage current	0.75mA max @240Vac 50Hz					
Current Accuracy	±5%					
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1/9



### Technical Data(cont.)

Ripple current	Ip-p: 5% LED 60%-100% load			
Turn-on Delay time	1.2s			
Overshoot	10%lo			
Over voltage protection	120%vomax			
Input Under Voltage	Shut Down When Vmains≤85±5Vac; Auto Recovery When Vmains≥90±5Vac			
Over temperature protection	Decrease output current until over temperature state is removed			
Short circuit protection	Protection type: hiccup mode, recovers automatically after fault condition is removed			
Operating temperature	-40 ~ 70°C;			
Storage temperature	-40 ~ 85°C			
Humidity operational	10% ~ 100%RH			
Humidity storage	5% to 100%RH			
MTBF	>280,000 hours @110Vac & 80% Load			
Life rating	>50,000 hours			
Maximum case Temperature	90°C			
Length (L)	9.49" (220mm)			
Width (W)	2.68" (68mm)			
Height (H)	1.453" (38.8mm)			
Weight	800g			

#### Notes:

- 1. Unless specified, all the test results are measured in the 25°C ambient temperature.
- 2. The results vary according to different LED load characteristics.
- 3. Please confirm working conditions according to the derating curve of output power vs. input voltage and temperature. LED driver recommended for its intended use only, do not exceed data sheet specifications.
- 4. Refer to lifetime vs. Tc curve.
- 5. Contact Autec Sales for Tc location.

### Wiring Diagram





# ■ Safety Compliance

Safety Category	Standard
UL 8750	Light Emitting Diode(LED) Equipment for Use in lighting Products
UL 1012	Power Unit Other Than Class 2
IEC 61347-1	Lamp Control Gear Part 1: General and Safety Requirements
IEC 61347-2-13	Lamp Control Gear Part 2-13: Particular Requirements for DC or AC Supplied Electronic Control Gear for LED Modules
EMI Standards	Notes
IEC 55015	Conducted emission test & Radiated emission test
IEC 61000-3-2	Harmonic current emissions; Class (≥75% load)
IEC61000-3-3	Voltage fluctuations & flicker
FCC Part 15	Class B
EMS Standards	Notes
IEC 61000-4-2	Electrostatic discharge (ESD)
IEC 61000-4-3	Radio frequency electromagnetic field susceptibility test (RS)
IEC 61000-4-4	Electrical fast transient (EFT)
IEC 61000-4-5	Surge immunity test L-N:2kV; LN-PE;4kV
IEC 61000-4-6	Conducted radio frequency disturbances test (CS)
IEC 61000-4-8	Power frequency magnetic field test
IEC 61000-4-11	Voltage dips
IEC 61547	Electromagnetic immunity requirements applies to lighting equipment

### Dimming

Parameter	Min.	Тур.	Max.	
Vcc	-	12V	-	
12V Auxiliary Output source current	-	200mA	300mA	
Rin	-	51kOhm	-	
Absolute maximum voltage range	-20V	-	20V	
on the 0-10V input pin				
Dimming range	10%	-	100%	
Vdim+ pull up resistor rin	-	51kOhm	-	
Dim off threshold		0.5V		
Dim off Hysteresis		0.2V		
0-10V Dimming range	10%(Vdim=1V)	-	100%(Vdim=8~10V)	
PWM Dimming range	10%(Duty=10%)	-	100%(Duty=80-100%)	
PWM high	3V	-	10V	
PWM low	0V	-	0.6V	
PWM frequency	300Hz	-	2kHz	
External PWM controller current	300uA	-	-	
sinking capabiltiy				

The dimmer control is operated from an input signal of 0-10Vdc. Recommended implementations are provided below.











# Power Factor vs Output Voltage



## ■ Lifetime vs Case Temperature





# Efficiency vs Output Voltage







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THD vs LOAD

THD



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### Mechanical Diagram Non-dimming



Note: Please make sure the output cable does not connect to dimming cable or the cables of other drivers until 20 seconds after being tested because of the remained voltage in the output capacitor.









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\*Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.