

# ACEPOWER-USA

## C series-dimmable constant current LED driver

### Features :

90~126V model or 200~305Vac model available

**Multiple dimming control option, including AC input phase control**

**0~10V control, TTL PWM input and integrated on board VR control options**

Constant current output, instant start, light turn on less than 250mSec.

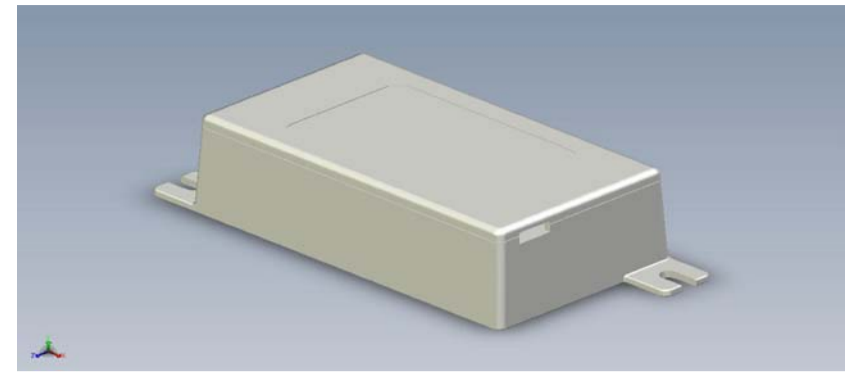
High power factor, PF>0.9 with no inrush current, high efficiency up to 85%

Protections: Short circuit / Overload / Over voltage/Over Temp. Protection

Free air convection cooling

suitable for dry / damp / wet locations

3 years warranty



### SPECIFICATION

INPUT	Voltage and Frequency RANGE	Both 90~126Vac(CL model), or 200~277Vac(CH model) 47 ~ 63Hz input model available							
	AC CURRENT	0.4A at 115Vac input,0.2A at 230Vac input, at 24W load condition							
	POWER FACTOR	> 0.9 at full load output, 0.95 typical							
	INRUSH CURRENT(Typ.)	less than 1A at 115/230V input							
	LEAKAGE CURRENT	<1mA at 240VAC							
	Dimming control options	<b>B option Standard model without the dimming option</b> <b>P option models can operate with ELV type AC input phase control switch ( note 3)</b> <b>D option models can operate with 0~10V control input from the output side</b> <b>E option models can operate with TTL digital PWM input control signal(h from the output side(active low)</b> <b>N option models have internal integrated on chassis adjustable VR</b>							
MODEL	CX24A-SY and CX24B-SY version				CX24A-EY and CX24B-EY version				
	<b>X=L for 120Vac , X=H for 240/277Vac model, Y=N for internal integrated on chassis adjustable VR,</b> <b>Y=D for 0~10V control model, Y=E for TTL PWM control, Y=P for AC phase control model</b> <b>Y=B for base model without dimming option,</b>								
OUTPUT	VOUT RANGE (VOLT)	Standard output Voltage range 2V ~ 31V				Extended output Voltage range 15V ~ 42V			
	PART NUMBER	CX24A-SY1050	CX24A-SY700	CX24A-SY500	CX24B-SY350	CX24A-EY700	CX24A-EY564	CX24A-EY500	CX24B-EY350
	CONSTANT CURRENT(mA)	1050	700	500	350	700	564	500	350
	MAX POWER (Watt)	24	21	15	10.5	24	23.7	21	14.7
	CURRENT setting ADJ. RANGE	factory preset, no user adjustment, other current level can be factory preset from 170mA to 1050mA the output current can be controlled by dimmer( see dimming control below)							
	CURRENT TOLERANCE	+/-5% maximum							
	SETUP, RISE TIME	250mS MAX							
EFFICIENCY (Typ.)	80~85%								
PROTECTION	OVER CURRENT	CONSTANT CURRENT WITHIN RATED OUTPUT VOLTAGE RANGE							
	SHORT CIRCUIT	output shall shut down and automatic restart							
	OVER VOLTAGE	Output Voltage shall NOT exceed 150% of the max rated voltage.							
	OTP(over temperature)	internal over temperature protection circuit will lower the output current in case of over temperature condition							
ENVIRONMENT	WORKING TEMP.	nominal -20 to +50 C ambient at full load, linearly derate to 60% of output rating up to 80C							
	WORKING HUMIDITY	5% to 100%, non-condensing							
	STORAGE TEMP., HUMIDITY	-40 to 80 C, 5% to 95%RH							
	TEMP. COEFFICIENT	0.1% per degree C maximum							
SAFETY & EMC	VIBRATION	Frequency 5 to 50 Hz, acceleration ±7.35 M/(S*S), direction X,Y and Z Axis							
	SAFETY STANDARDS	UL pending FOR SPECUALTY POWER SUPPLY with class 2 output							
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25C / 70% RH							
	EMI CONDUCTION & RADIATION	Meet FCC Part 15 Class B, CISPR22 Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class A ; EN61000-3-3							
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11.								
Dimming control	Phase control dimming option Y=P Model	Output voltage PWM dutiy cycle calcluated by Microporcessor using the phase controlled AC input for dimming of the LED. No extra control wire needed ( ELV type phase control dimmer only)							
	0~10V control dimming option Y=D Model	Output voltage PWM dutiy cycle ( at ~1KHz) controlled by the 0-10V sink type controls dimmer as specified in IEC 60929 Annex E( note 3, 4) or a external 100K variable resister							
	TTL PWM control Y=E Model	Output voltage PWM dutiy cycle controlled by external TTL PWM digital signal ( 100Hz~ 5KHz). When the input signal is active high the output is inhibited.							
	On board VR control option Y=N Model	Output voltage PWM dutiy cycle ( at ~1KHz) controlled by internal integrated on chassis adjustable VR							
OTHERS	MTBF	>100K hours, MIL-HDBK217E at 25 degrees C ambient.							
	DIMENSION	115mm X51mm X 31mm max							

### NOTE

- All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  
**For 0~10V PWM control dimming**
- The external control signal source connected to the -D models purple and gray control wires, should have the capability to sink a minimum of 10mA for multiple power supply connected together. A single module requires a minimum sink current of 250uA
- In IEC standard for current sink controls - Standard 60929 Annex E. it requires that the ballast (or driver) provides full light output when the control voltage is 10 Volts (or above). As the control voltage is reduced by the control, the light level is reduced. At a control voltage of 1 volt, the ballast (driver) provides its minimum light level. Any voltage less than 1 volt is defined as minimum. Some drivers' minimum is off, while other drivers' minimum is the lowest light level of the driver. It is important to understand what minimum is for a particular driver. For drivers that do not go to off at minimum, a separate relay or switching device is required. Our SDVN min dimming level can be factory set to what customer required