

ARC-DI-96X2-I1920-UNV-D1S-LS

Features

- Universal AC Input Voltage(120-277VAC)
- Metal sheet case
- One isolated 0-10V dimming interface
- Flicker free, excellent camera compatibility
- Dual Output, Class2, Class P
- Operating temperature: -20 °C ~+50 °C
- Comply with IEEE1789, UL8750
- Programmable
 - Output current(1mA step)
 - Dim to off
- Aux power, 12V/200mA
- ANSI C62.41 Category B 6kV



Model list

Model NO.	Rated Input Voltage	Max Output power	Default Output Current	Output Current Range	Output Voltage Rated	Aux Power
ARC-DI-96X2-I1920-UNV-D1S-LS	120-277Vac	96W+96W max.	840mA*2	(840-1920mA)*2	35-50VDC	12V

Parameters

	Parameter	Min	Typ.	Max	Note	
INPUT	Input Voltage	120Vac	-	277Vac	-	
	Input Voltage range	108Vac	-	305Vac	-	
	Rated Frequency	47Hz	50/60Hz	63Hz	-	
	Input current	-	-	2A	@120Vac full load	
	Inrush current	-	-	25A	120Vac, cold start (25°C)	
	Power Factor		>0.95	-	-	@120Vac 100% load
			>0.9	-	-	@277Vac 100% load
	T.H.D.		-	-	<10%	@120Vac 100% load
			-	-	<15%	@277Vac 100% load
	Efficiency		-	86-88%	-	@120Vac Vout=50V, Iout=1920mA, steady state
			-	88-90%	-	@277Vac Vout=50V, Iout=1920mA, steady state
Turn On Delay Time		-	-	0.75S	Cold Start, @120VAC	

	Parameter	Min	Typ.	Max	Note
Output	Programmable Output Current	840mA	-	1920mA	Per Channel
	Output current tolerance	-	-	5%	1500-1920mA
	Output Voltage	35V	-	50V	The derating begins when the input voltage is less than $108 \pm 10\%V_{ac}$
	Output Power	-	-	192W	Total Power, See "Operating window"
	Line Regulation	-	-	3%	-
	Load Regulation	-	-	5%	VOUT from MIN. to MAX.
	Ripple Current	-	-	10%	Full Load, $(I_{omax}-I_{omin})/(I_{omax}+I_{omin})$
	Output Current Overshoot	-	-	10%	Turning Power ON
	0~10V or Resistor Dimming	Dimming Curve	Linear. please see "Dimming curve".		
Source Current on 0~10V Dimming Pin		-	200uA	-	-
Light Off		-	0.7±0.1V	-	-
Dimming Voltage for Full Bright		-	8.5V	-	-
Dimming Range		1%	-	100%	
External Resistor Value at Full Bright		-	100	-	kΩ
Leakage Voltage		-	-	20	Voltage between DIM- and Ground
Programming	The driver can be programmed through Programming Port. · Output current(1mA step) · OTP point of driver, LED thermal protection				
		the driver can be easily connected to a digital control system, to set the driver(eg: output current , dimming level, and so on).			
	Programming Port	Programming software	EU Configure Tool		
		Programming tool	EU-PROG		
	Operating voltage	-	5V	-	
Auxiliary source	Output Power	-	-	2.4W	-
	Output Voltage	-	12VDC	-	-
	Voltage tolerance	-	-	8%	-

	Parameter	Min	Typ.	Max	Note
Protection	Over Voltage Protection	-	-	60V	Recover automatically after fault conditions is removed.
	Over Temp. Protection	-	90 °C	-	Programmable. Current foldback at hotspot greater than TOTP
	Short Circuit Protection	Recover automatically after fault conditions is removed.			
Environment	Storage Temperature	-40 °C	-	85 °C	Total Power, See "Operating window"
	Ambient Operating Temperature (ta)	-20 °C	-	50 °C	
	Max. Case Temperature (tc)	-	-	90 °C	Hot spot on case
	Operating Relative Humidity (Ha)	10%	-	90%	Non-Condensing
	Acoustic Noise	-	-	24dBA	Measured from 1 m w/o dimmer.
	Cooling	Convection Cooling			
	IP Rating	Dry and damp UL approved			
Others	Life Time	50kHrs	-	-	Full Load, 80°C case temperature,
	MTBF	200kHrs	-	-	
	Warranty	5 Years Warranty at Tc ≤80°C			
	Flicker	IEEE 1789, Title 24			
Safety Compliance	CUL/UL	UL8750, CAN/CSA-C22.2 No. 250.13			

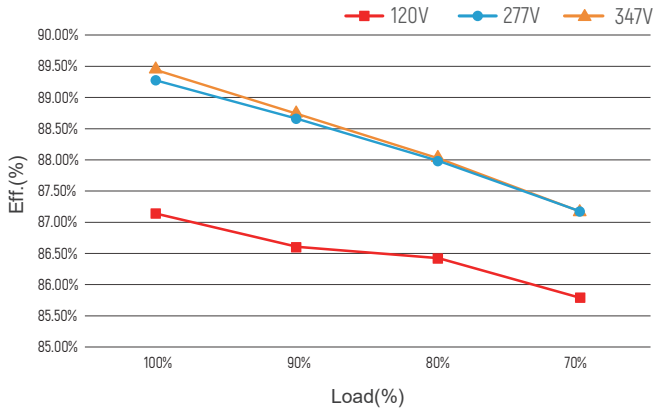
	EMC Requirements	Standard	Conditions
Electromagnetic Compliance	EMI Emissions	FCC Title 47 Part 15B	Class A
	Voltage Fluctuations and Flicker	IEC61000-3-3	
		IEC 61000-4-2	±8kV air Discharge, ±6kV Contact Discharge
		ANSI C82.77-2015	Category B, 6kV, Comb wave
		IEC 61000-4-11	>95% dip, .5 period; 30% dip, 25 periods; 95% reduction, 250 periods
		IEC 61000-4-4	± 2kV Direct couple to Line input, 5kHz repetition rate, 15mS duration, 300mS period. 7 coupling paths, 1 minute per path (14 total combinations)

Note: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25 °C and rated voltage.

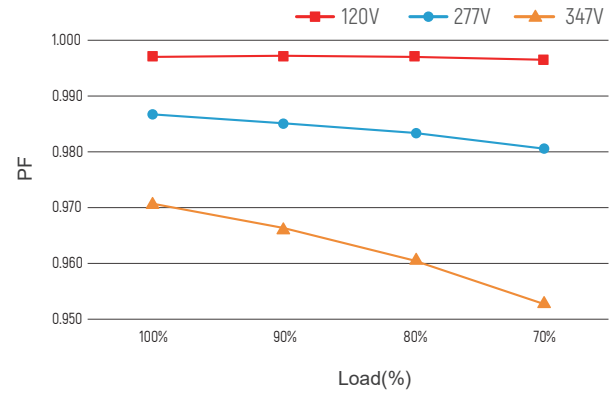
Packaging

Driver quantity (pcs)	Layer	Weight (kg)	Outer dimensions of Carton L*W*H(mm)
20	4	TBD	TBD

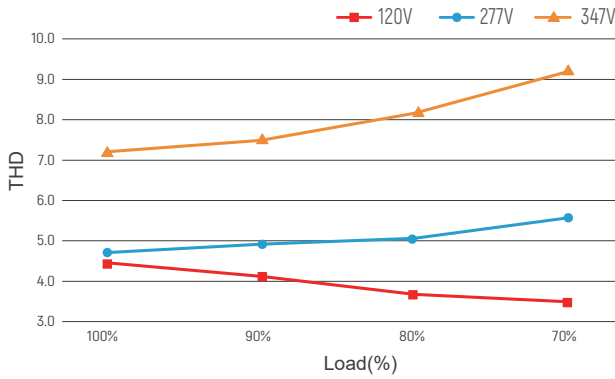
Efficiency Vs. Load



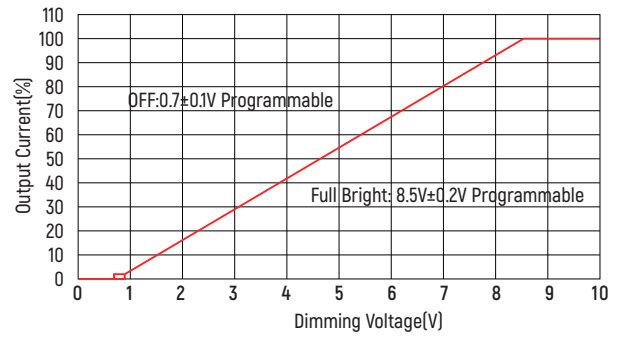
PF Vs. Load



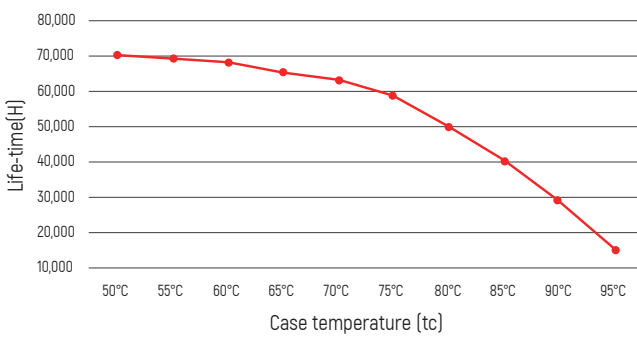
THD Vs. Load



Dimming Voltage Vs. Output Current



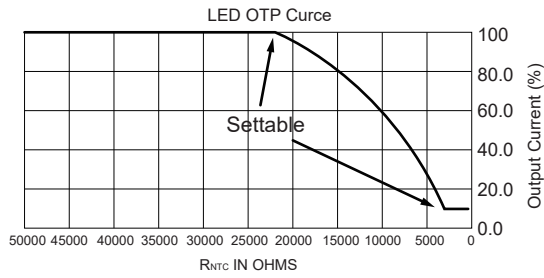
Life-time vs. case temperature



The life-time of the led driver is shown in the figure above (calculated based on the 90% survival rate).

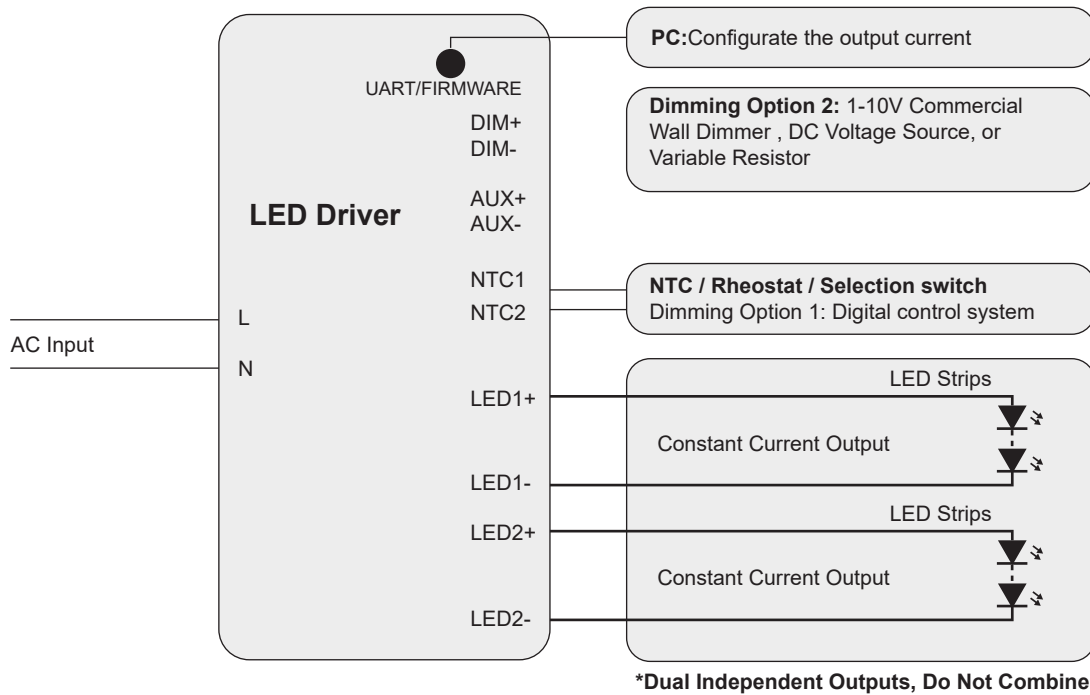
The relation of t_c to t_a temperature depends also on the luminaire design.

LED Thermal Protection (NTC) Characteristic(Optional)



Graphs for reference. The derating limits can be programmed using the Light Touch. In the end application, care must be taken to place the NTC thermistor close to the hottest spot on the LED module. If LED thermal protection is not required the NTC port on the LED power supply connector can be left open.

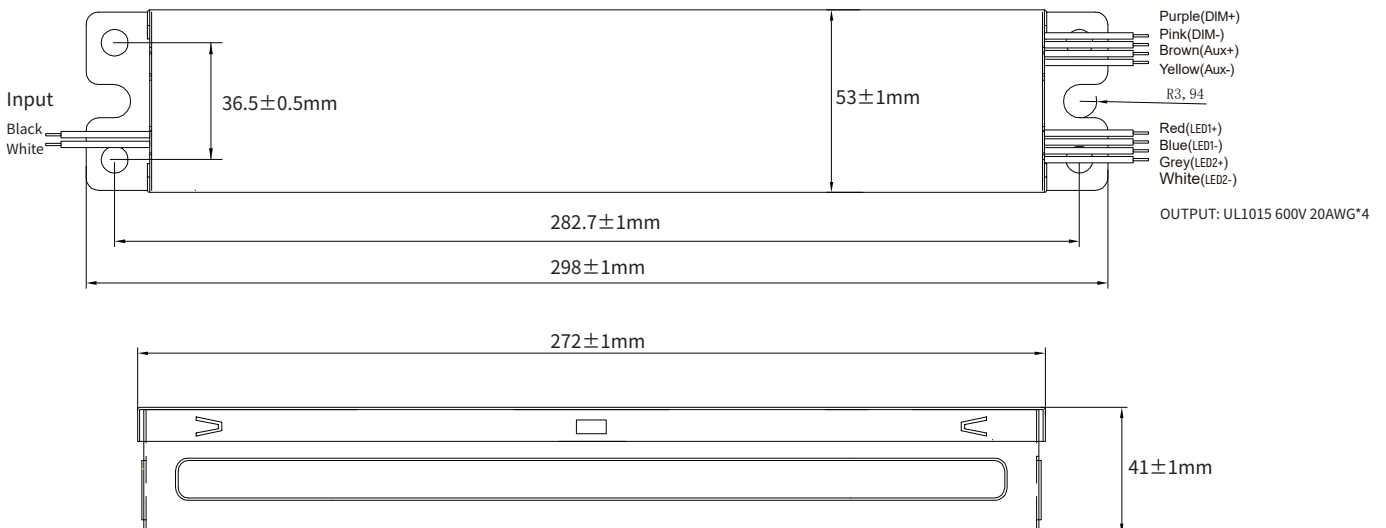
Typical Application



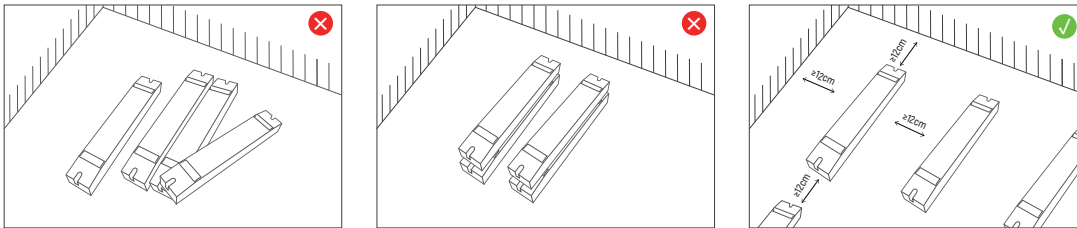
Mechanical Drawing:

INPUT: UL1015 600V 18AWG*2

Dimming: UL1015 600V 20AWG*2
Aux Power: UL1015 600V 20AWG*2



Installation Precautions



Please do not stack the products. The distance between two products should be $>12\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.

Cautions

1. This product should be installed by qualified personnel.
2. This product is non waterproof, need to avoid sun and rain. In case of outdoor use, please ensure it is mounted in a water proof enclosure.
3. Good heat dissipation conditions extend product life. Please install the product in a well-ventilated environment.
4. Please make sure LED power supply output voltage, current is used to meet the product requirements.
5. Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector.
6. Due to safety concerns, PVC or rubber cord of $0.75\text{-}2.5\text{mm}^2$ is recommended for input and output terminal(s) (excluding signal terminals). Flat power cord is not suitable. Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
7. In case of malfunction, do not repair it yourself.

※ The contents of this manual are updated without prior notice. If the function of the product you are using is inconsistent with the instructions, the function of the product shall prevail. Please contact us if you have any questions .

Warranty Agreement

1. Warranty periods from the date of delivery : 5 years.
2. Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

1. Beyond warranty periods.
2. Any artificial damage caused by high voltage, overload, or improper operations
3. Products with severe physical damage.
4. Damage caused by natural disasters and force majeure.
5. Warranty labels and barcodes have been damaged.
6. No any contract signed by EUCHIPS.

· Repair or replacement provided is the only remedy for customers. EUCHIPS is not liable for any incidental or consequential damage unless it is within the law.
· EUCHIPS has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.