

FIXTURE TYPE _____

PROJECT NAME _____

LOCATION _____



ULV192

192 WATT(2 × 96W) –24 VOLT |
CLASS 2 POWER SUPPLY



Description

Indoor/Damp Dual-Output (2 × 96W) Class 2 Power Supply. 100–277V Input, with 0-10V, ELV, MLV, DMX and Incandescent dimming.

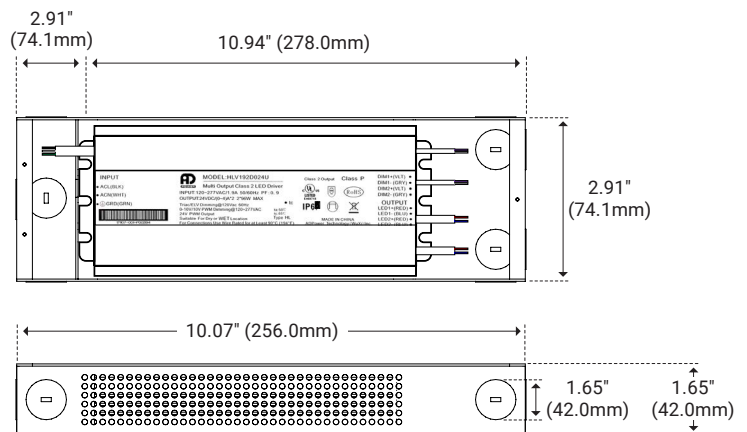
Features

- 431 Hz / Flicker-free Dimming Down to 5%
- Incandescent, ELV, MLV, or 0-10V Dimming
- Two Independent 0-10V Inputs
- Protections: Short Circuit / Over Current / Over Voltage
- Free Air Convection Cooling
- Suitable for Dry / Damp Location
- UL-Listed Class 2

Specifications

Series	ULV192
Input Voltage	100–277V AC
Output Voltage	24V DC / Constant Voltage
Max Wattage	192W (2 × 96W)
Temp Range	-20°F(-28°C) – 158°F (70°C)
Dimensions	11.42" × 3.42" × 1.42"
Classification	Class 2

Dimensions



Model List

Model Name	Rated Input Voltage	Rated Output Power	Rated Output Voltage	Output Current	Notes
ULV192	100-277V AC	96 W × 2	24 VDC × 2	0-4000 mA × 2	2 Channel Output
	120 VAC				



I Specification

Parameters	Symbols	Test Conditions / Comment	Min	Typ	Max	Units
INPUT						
Input Voltage	VIN		108		305	VAC
Rated Input Voltage	VIN RATED	Phase Cut Dimming		120		VAC
		No Phase Cut Dimming	120		277	VAC
Input Frequency	fline		47		63	Hz
Input Current	IIN	Full Load, VIN = 120 VAC			1.9	A
		Full Load, VIN = 230 VAC			1	A
		Full Load, VIN = 277 VAC			0.9	A
GENERAL CHARACTERISTICS						
Power Factor	PF	30% – 100% Load, VIN = 120 VAC	0.95			PF
		50% – 100% Load, VIN = 230 VAC	0.9			PF
		60% – 100% Load, VIN = 277 VAC	0.9			PF
Total Harmonic Distortion	THD	30% – 100% Load, VIN = 120 VAC			20	%
		50% – 100% Load, VIN = 230 VAC			20	%
		60% – 100% Load, VIN = 277 VAC			20	%
Efficiency	η	Full Load, VIN = 120 VAC	88	90		%
		Full Load, VIN = 230 VAC	90	92		%
		Full Load, VIN = 277 VAC	90	92		%
Turn On Delay Time	Ton_delay	Cold Start, No TRIAC Dimmer		0.3	0.5	S
OUTPUT						
Output Voltage	VOUT	No Dimming	22.8	24	24.7	V
Output Current	IOUT	Per Channel	0		4000	mA
Line Regulation	VOUT-LINE				1	%
Load Regulation	VOUT-LOAD	IOUT from MIN. to MAX.			2	%
Ripple Voltage	VOUT-RIPPLE	Full Load , (pk-to-pk) / 2 × Average			3	%
Output Voltage Overshoot		Turning Power ON			2	%
0-10V OR RESISTOR DIMMING						
The 0-10 V or resistor dimming is a dimming manner that can be used to dim the output voltage via a standard commercial wall dimmer (0-10 VDC) or an external control voltage source (0-10 VDC) or external resistor.						
The dimming range is 100 % VO _{UT} to 5 % VO _{UT} . When VD _{IM} is 8-10 VDC, the output voltage maintains 100% VO _{UT} , and when VD _{IM} is below 0.6 V, the output voltage is 5% VO _{UT} .						
Absolute Maximum Voltage on 0-10 V Pin	VDIM		-2		15	V
Source Current on 0-10 V Dimming Pin	IDIM			100		uA
VDIM Voltage for Full Bright	VDIM-MAX		8			V
Output Duty Cycle	D0-10V	PWM Output	5		100	%
External Resistor Value at Full Bright	RExternal-MAX			90		kΩ



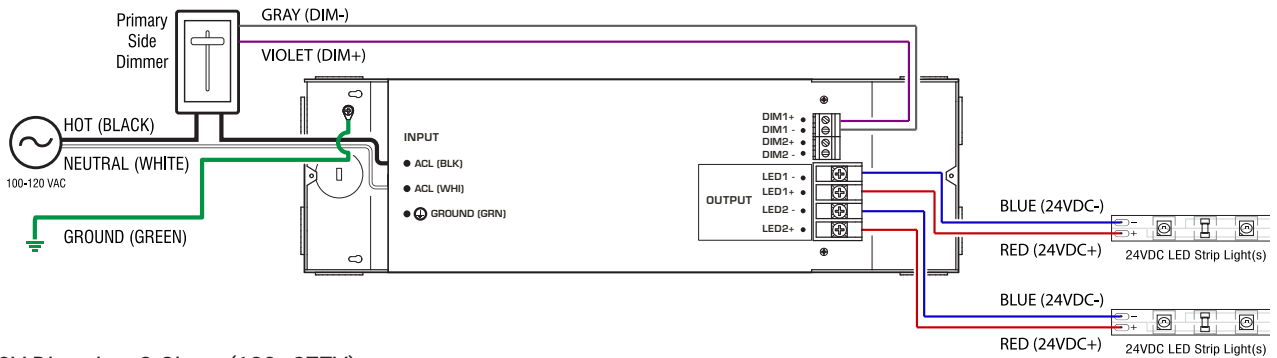
I Specification

Parameters	Symbols	Test Conditions / Comment	Min	Typ	Max	Units
PWM DIMMING						
The PWM dimming is a dimming manner that can be used to dim the output voltage via the duty cycle of PWM signal. The dimming range is 100 % V _{OUT} to 5 % V _{OUT} . When the duty cycle is 80 % to 100 %, the output voltage reaches 100 % V _{OUT} , and the output voltage maintains 5 % V _{OUT} when the duty cycle below 6 %.						
PWM Frequency	fPWM		0.1		1	KHz
High Level Voltage of PWM Signal	VPWM-High	VPWM-High Affect Output Voltage	8	10	12	V
Lower Level Voltage of PWM Signal	VPWM-Low	VPWM-Low Affect Output Voltage	0		1	V
Output Duty Cycle	DPWM	PWM Output	5		100	%
PHASE CUT DIMMING						
The unit is compatible with leading-edge and trailing-edge dimmer.						
Input Voltage	VIN-TRIAC DIM			120		VAC
Output Duty Cycle	DTRIAC	PWM Output	0	-	100	% of
Suggest Load Range	PSuggest	VIN = 120 VAC, Total Load	19.2		192	W
PROTECTION						
Over Voltage Protection	VOVP	Latch Off Mode			30	V
Over Current Protection	IOCP	It will recover automatically after fault condition is removed.	4.0		4.5	A
Over Temperature Protection	TOTP	If the case temperature exceeds OTP point, the output voltage of the driver is automatically reduced.		90		°C
Short Circuit Protection	It will recover automatically after fault conditions is removed.					
ENVIRONMENT						
Storage Temperature	TStorage	Humidity: 5 % RH to 95 % RH	-40	-	+85	°C
Operating Relative Humidity	Ha	Non Condensing	10		90	%
OTHERS						
Life Time	TLife	Full Load, 120 VAC Input, 25 °C Ambient Temperature	50			kHrs
MTBF	TMTBF		200			kHrs
Dimension L x W x H	290 mm x 85 mm x 36.5 mm (11.42" x 3.35" x 1.44")					
SAFETY COMPLIANCE						
UL Listed	UL8750 Compliance to UL1310 Class 2, CSA-C22.2 No. 107.1					
EMC COMPLIANCE						
FCC Part 15B	Conducted Emission Test and Radiated Emission Test					
Note: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25 °C and VIN = 100 – 277 VAC.						

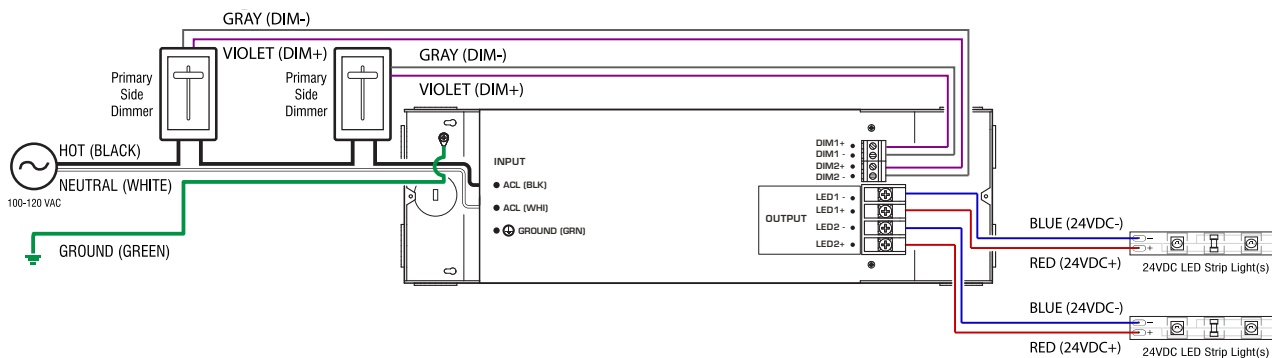


I Typical Application

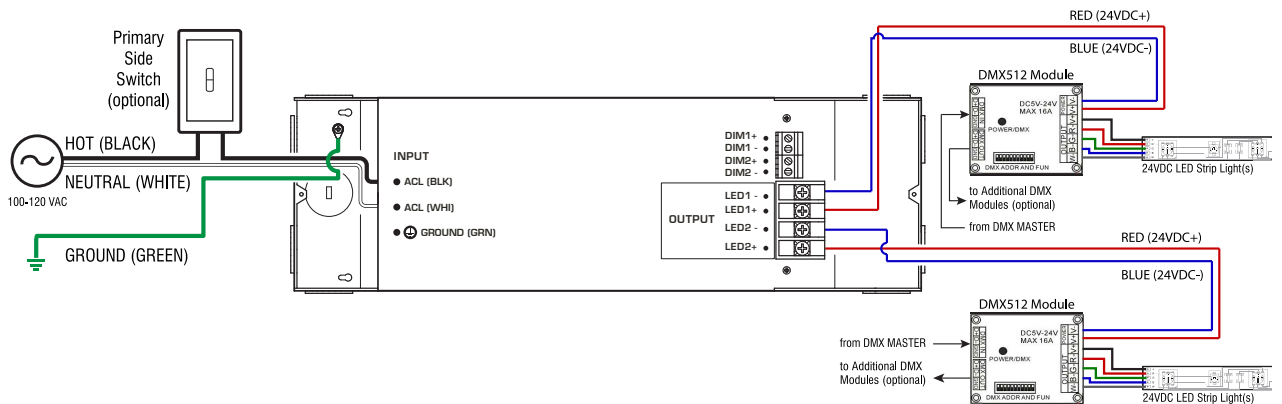
0-10V Dimming, 1-Circuit (120-277V)



0-10V Dimming, 2-Circuit (120-277V)



DMX Control (120-277V)



Primary Side Dimming (120V)

