LKAD220V-T

c UL us E478938 **Class2 SELV TYPE HL**

Features

Output:	Constant Voltage
Range:	120-347VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 90%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof Performance:	For dry, damp, wet locations
Dimming function:	Phase dimming: work with forward phase, MLV and Reverse phase, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
Dimming Range:	0-100%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty

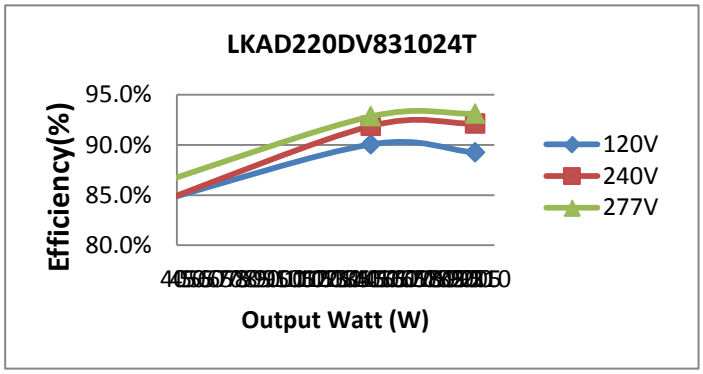
Specification

Model:		LKAD220DVF00012T	LKAD220DV831024T	LKAD220DV414048T
Certificate		UL,CUL		
Output	DC Voltage	12V	24V	48V
	Voltage Tolerance	±0.5V		
	Voltage Regulation	±0.5%		
	Rated current	16.67A	8.33A	4.17A
	Rated power	200W		
	Load Regulation	±2%	±1%	±1%
Input	Voltage Range	120-347VAC		
	Frequency Range	50/60hz		
	Power Factor(Typ.) @full load		0.99@120VAC 0.977@347VAC	
	THD(Typ.) @ full load	<15%@120VAC & 347VAC		
	Efficiency(Typ.) @ full load		≥89.3%@120VAC ≥92.94%@347VAC	
	AC Current (Max.)	0.58A		
	Inrush Current (Typ.)	15A, 50%, 1.4ms @120VAC	65A, 50%, 1.4ms @347VAC	
	Leakage current	<0.5mA		
Protection	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition removed		
	Over Load	≤120% constant current limiting, auto-recovery after fault condition removed		
	Over temperature	100℃±10℃ shut down o/p voltage, automatically recover after cooling		
Environment	Working TEMP.	-40~+60℃ (see below derating curve)		
	Working Humidity	20 - 95%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80℃,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/℃(0 - 50℃)		
	Vibration	10~500Hz, 5G 12min./1 cycle, period for 72min. each along X,Y,Z axes		
Safety & EMC	Safety standards	UL8750 , CAN/CSA-C22.2 No.250.13		
	Withstand voltage	I/P-O/P: 1.8KVAC I/P-FG: 1.8KVAC O/P-FG1.8KVAC		
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25℃/ 70% RH		
	EMC Emission	FCC 47 CFR Part 15 ,Subpart B		
Others	Net Weight			
	Dimension	210*104*40mm(L*W*H)		
	Packing	1 pc in 1 inner box		
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25℃of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation.			

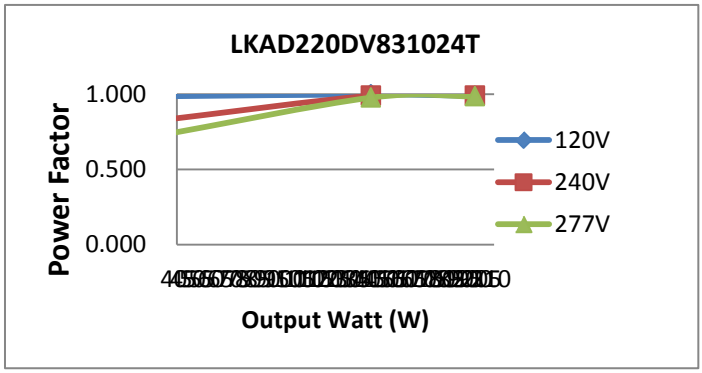
Electrical Characteristics

Model: LKAD220DV831024T							
Input voltage (Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage (Vdc)	Output Current (MA)	Output Power (W)	Efficiency (%)
120V	1900.00	224.00	0.990	24.00	8330	199.92	89.3%
	1313.00	159.90	0.999	24.00	6000	144.00	90.1%
	237.60	28.55	0.986	24.00	1000	24.00	84.1%
240V	892.00	217.00	0.992	24.00	8330	199.92	92.13%
	643.60	156.70	0.991	24.00	6000	144.00	91.90%
	144.00	28.62	0.817	24.00	1000	24.00	83.86%
277V	778.00	214.70	0.987	24.00	8330	199.92	93.12%
	567.80	155.10	0.978	24.00	6000	144.00	92.84%
	141.10	27.97	0.712	24.00	1000	24.00	85.81%
347V	636.10	216.10	0.977	23.91	8400	200.84	92.94%
	535.10	181.10	0.973	23.93	7000	167.51	92.50%
	481.60	162.30	0.968	23.92	6250	149.50	92.11%
	396.60	130.70	0.947	23.92	5000	119.60	91.51%
	327.60	106.00	0.930	23.93	4000	95.72	90.30%
	252.70	66.80	0.760	23.94	2500	59.85	89.60%

Efficiency Curve (efficiency vs ouput watt)



Power Factor Curve



Compatibility Testing for Phase Dimmer

Test by EU Standard 240V dimmers

Model: LKAD220DV831024T

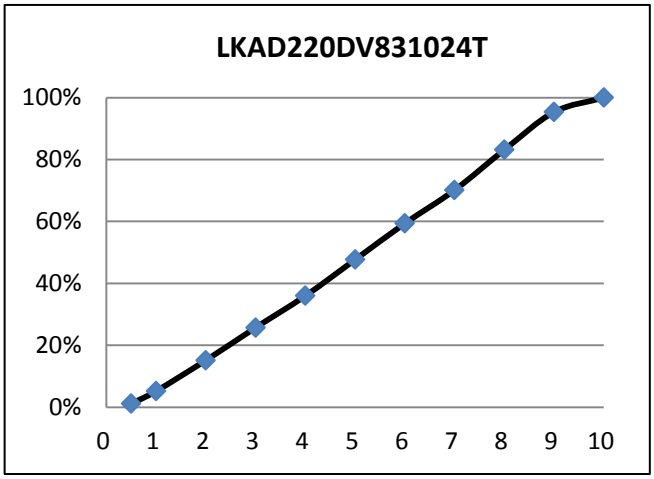
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	T&J 25-1000W	26.19	196.50	13.33%
2	Lautrupvang DK-275D	16.53	188.50	8.77%
3	JUNON 300W	29.30	201.50	14.54%
4	MEISUN 1000W220V	37.67	201.50	18.69%
5	Nader Cscrnaider	4.74	201.70	2.35%
6	CLIPSAL 500VA	15.89	135.00	11.77%
7	Midea 220V 630W	37.58	201.10	18.69%
8	European-No 1	11.74	186.50	6.29%
9	TCL 630W 220V	6.42	201.10	3.19%

Test by US Standard 120V dimmers

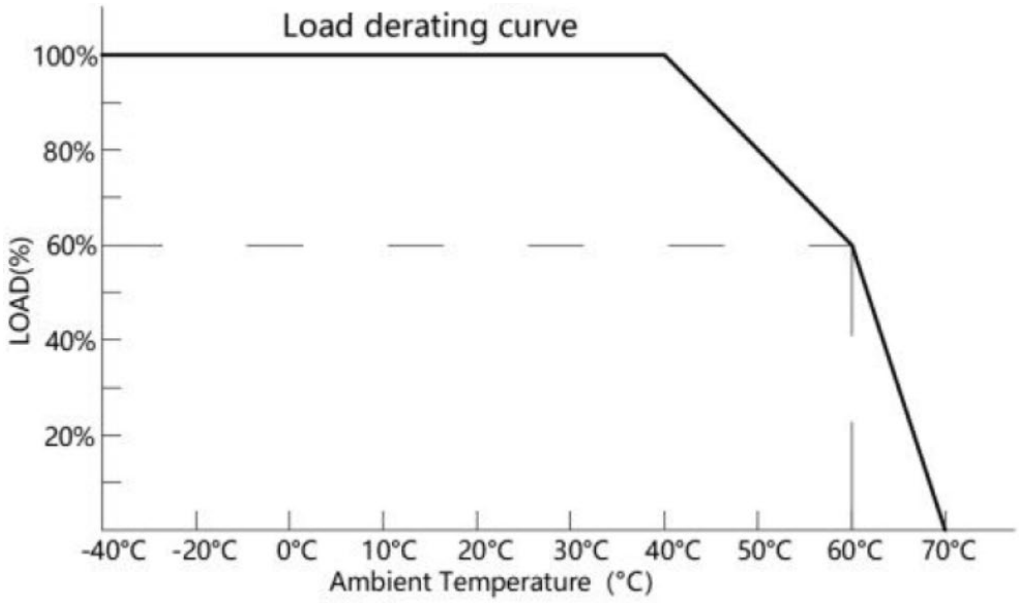
Model: LKAD220DV831024T

NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	Lutron SB-1 600W	17.40	179	9.72%
2	LC211	2.40	166	1.44%
3	Lutron TTCL100	48.20	162	29.81%
4	TLC-0005	3.80	172	2.21%
5	PEC-002	2.62	175	1.50%
6	TLC-0003	2.42	175	1.38%
7	LEVLTON 150W	50.00	195	25.64%
8	Lutron scl-153P	62.00	150	41.39%

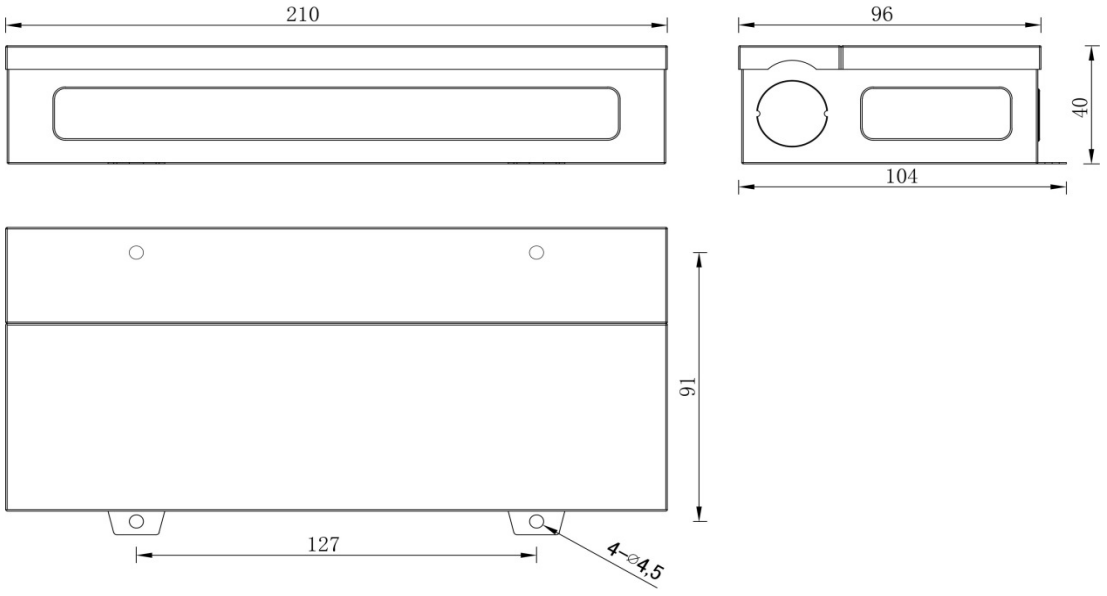
0-10V Dimming Curve



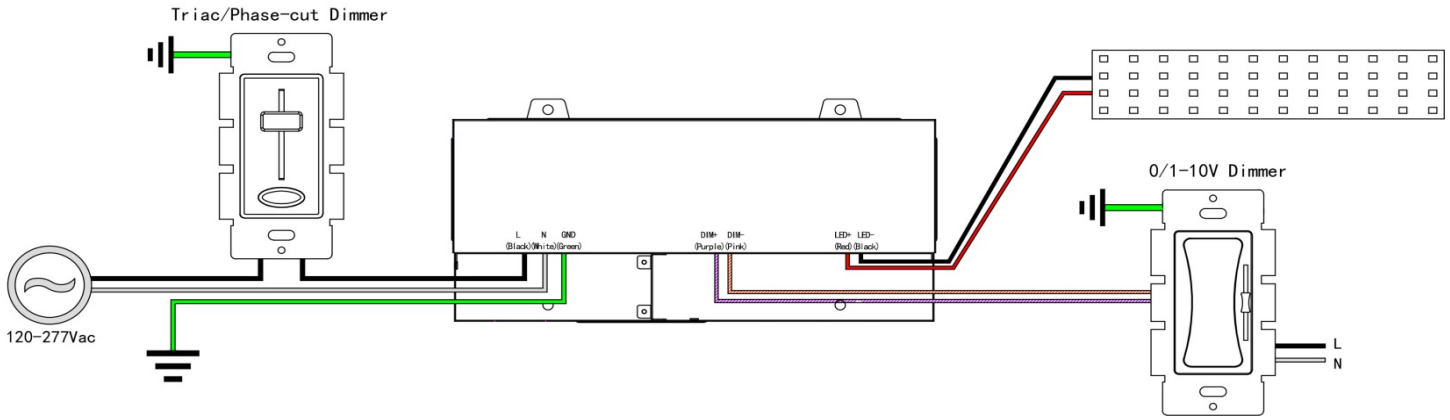
Derating Curve (output load vs TEMP.)



Installation Dimension



Wiring Diagram



1. Input cable 3*18AWG, the Green cable to GND, Black cable to L, and White cable to N of Mains AC.
2. Output cable 2*18AWG, Red cable (+) to LED Positive side (+) , Black cable (-) to LED Negative side (-).
3. Dimming cable 2*22AWG, Purple cable DIM (+) to 0/1-10V dimmer signal(+), Pink cable DIM (-) to 0/1-10V dimmer signal (-).
4. Please DO NOT connect “DIM-“ to “LED-“, “DIM+” to “ LED+”, or other incorrect connection.
5. Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged

Dimming Operation

This driver can dimming in two ways at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming.

1.TRIAC/Phase cut dimming

- The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
- Working with forward phase, MLV and Reverse phase , ELV, TRIAC dimmers or light system.
- Min. loading is about 10%
- Please try to use dimmers with power at least 1.5 times as the output power of the driver.

2. 0-10/ 1-10V/ 10V PWM/ Potentiometer dimming

Working well with most EU and US brands of 0/1-10V dimmers, 10V PWM dimmers or dimming system as well as potentiometer dimming system.

Notices

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.
4. If driver Cannot work normally, don't maintain privately.

If still have any questions, please contact us directly