

# LKAD240V-T



**Class2 SELV TYPE HL**



## Features

<b>Output:</b>	Constant Voltage
<b>Range:</b>	120-277VAC
<b>PFC design:</b>	Built-in active PFC function
<b>Efficiency:</b>	Up to 85%
<b>Protections:</b>	Short circuit/ over load/ over temperature
<b>Heat dissipation:</b>	Cooling by free air convection
<b>Waterproof Performance:</b>	For dry, damp, wet locations
<b>Dimming function:</b>	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
<b>Dimming Range:</b>	0-100%
<b>Application:</b>	Suitable for LED lighting and moving sign applications
<b>Warranty:</b>	5 years warranty

## Specification

Model:		LKAD240DVG70012T	LKAD240DV833024T	LKAD240DV417048T
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	120-277VAC		
	Frequency Range	50/60hz		
	Power Factor(Typ. ) @full load		0.999@120VAC 0.998@277VAC	0.999@120VAC 0.99@277VAC
	THD(Typ. ) @ full load	<15%@120VAC & 277VAC		
	Efficiency(Typ.) @ full load		≥85.8%@120VAC ≥92.4%@277VAC	≥90.27%@120VAC ≥92.69%@277VAC
	AC Current (Max.)	0.58A		
	Inrush Current (Typ.)	15A, 50%, 1.4ms @120VAC	65A, 50%, 1.4ms @277VAC	
	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°C±10°C shut down o/p voltage, automatically recover after cooling		
Environment	Working TEMP.	-40~+60°C (see below derating curve)		
	Working Humidity	20 - 95%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/°C(0 - 50°C)		
	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°C/ 70% RH		
	EMC Emission	FCC 47 CFR Part 15 ,Subpart B		
Others	Net Weight			
	Dimension	365*70.5*43.5mm(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°C of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation.			

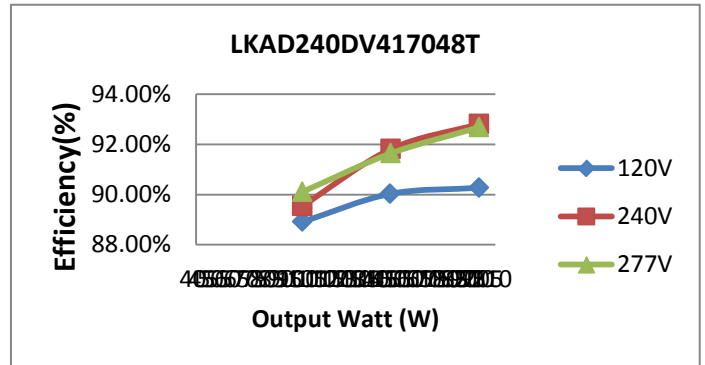
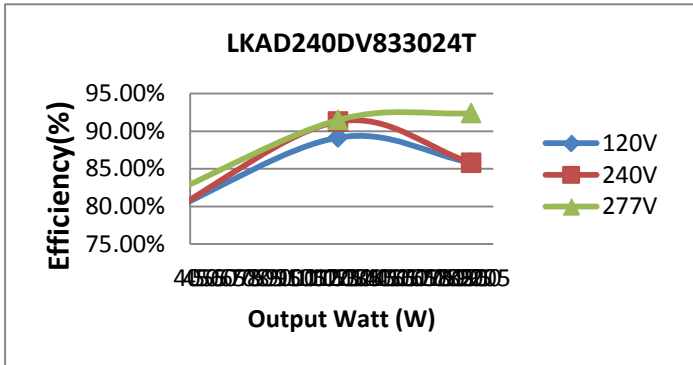


## Electrical Characteristics

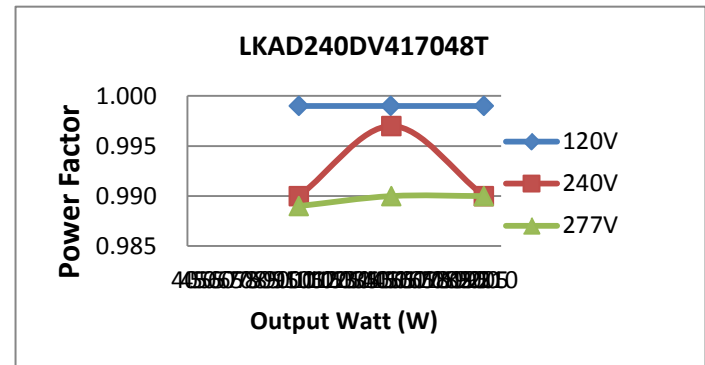
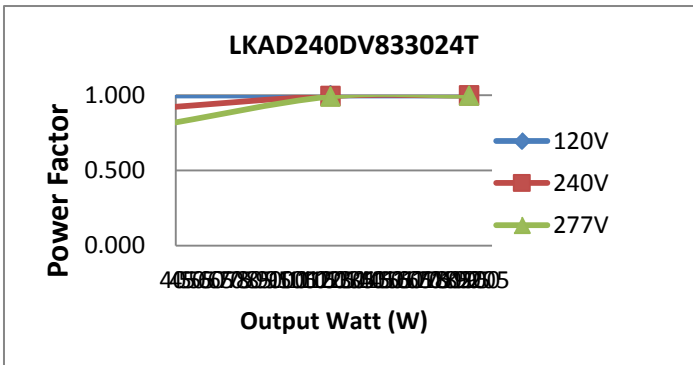
Model: LKAD240DV833024T							
Input voltage ( Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage ( Vdc)	Output Current ( MA)	Output Power (W)	Efficiency (%)
120V	1796.00	217.30	0.999	24.12	8000	192.96	85.80%
	1115.00	135.27	0.999	24.12	5000	120.60	89.16%
	251.20	30.57	0.999	24.12	1000	24.12	78.90%
240V	860.00	209.32	0.999	24.12	8000	192.96	85.80%
	551.00	132.11	0.996	24.12	5000	120.60	91.29%
	140.00	30.66	0.909	24.12	1000	24.12	78.67%
277V	755.00	208.82	0.998	24.12	8000	192.96	92.40%
	478.00	131.80	0.992	24.12	5000	120.60	91.50%
	136.00	29.72	0.784	24.12	1000	24.12	81.16%

Model: LKAD240DV417048T							
Input voltage ( Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage ( Vdc)	Output Current ( MA)	Output Power (W)	Efficiency (%)
120V	1878.00	222.40	0.999	47.80	4200	200.76	90.27%
	1408.00	166.90	0.999	47.70	3150	150.26	90.03%
	951.20	112.90	0.999	47.80	2100	100.38	88.91%
240V	909.60	216.30	0.990	47.80	4200	200.76	92.82%
	689.40	164.00	0.997	47.80	3150	150.57	91.81%
	471.20	112.10	0.990	47.80	2100	100.38	89.55%
277V	782.50	216.60	0.990	47.80	4200	200.76	92.69%
	597.00	164.30	0.990	47.80	3150	150.57	91.64%
	406.90	111.40	0.989	47.80	2100	100.38	90.11%

### Efficiency Curve (efficiency vs output watt)



### Power Factor Curve

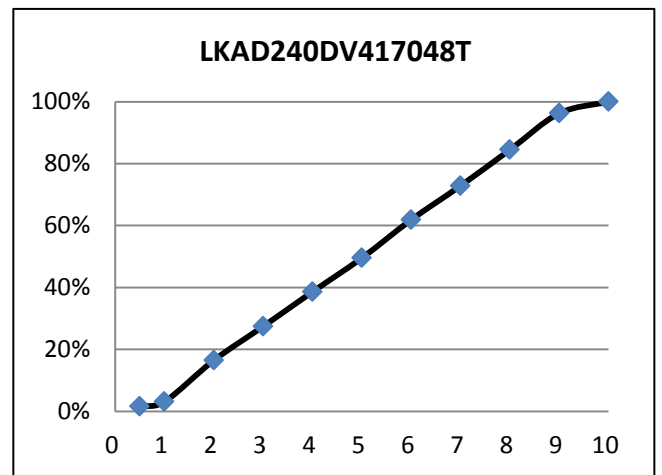
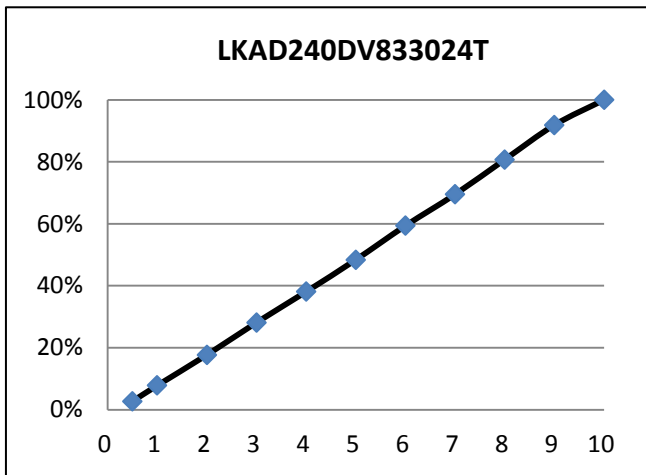




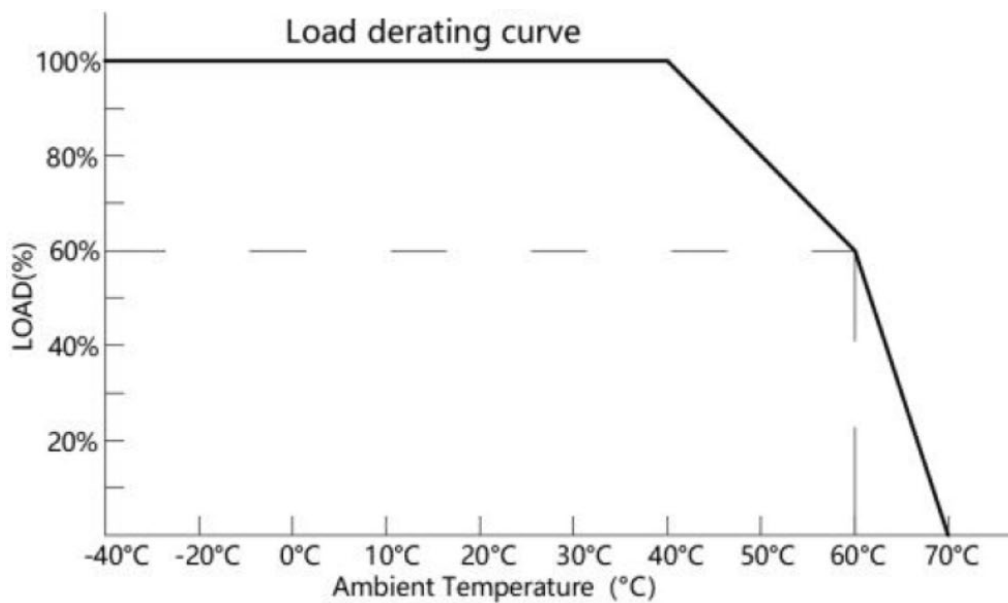
### Compatibility Testing for Phase Dimmer

Test by EU Standard 240V dimmers					Test by US Standard 120V dimmers				
<b>Model: LKAD240DV833024T</b>					<b>Model: LKAD240DV833024T</b>				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)	NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	T&J 25-1000W	0.26	206.70	0.13%	1	Lutron SB-1 600W	0.15	191.00	0.08%
2	Lautrupvang DK-275D	37.70	178.00	21.18%	2	LC211	5.00	165	3.03%
3	European-No 2	28.30	97.00	29.18%	3	Lutron TTCL100	28.80	172.00	16.74%
4	TENGEN V5-TG/G	0.59	207.20	0.00	####	TLC-0005	16.00	190	8.44%
5	Nader	0.15	206.00	0.07%	5	PEC-002	21.00	195.00	10.77%
6	CLIPSAL 500VA	0.17	178.00	0.10%	6	TLC-0003	21.00	195	10.77%
7	Midea 220V 630W	39.60	206.50	19.18%	7	LEVLTON 150W	5.70	179.00	3.18%
8	European-No 1	0.18	178.00	0.10%	8	PanaSonic Wn3020	1.57	174	0.90%
9	TCL 630W 220V	38.50	206.70	18.63%					
<b>Model: LKAD240DV417048T</b>					<b>Model: LKAD240DV417048T</b>				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)	NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	T&J 25-1000W	61.06	210.60	28.99%	1	Lutron SB-1 600W	14.30	215.50	6.64%
2	Lautrupvang DK-275D	78.26	197.20	39.69%	2	LC211	2.44	197.20	1.24%
3	European-No 2	47.00	196.00	23.98%	3	Lutron DVCL-253P-WH	3.20	199.00	1.61%
4	TENGEN V5-TG/G	32.00	215.00	14.88%	4	TLC-0005	17.69	204.10	8.67%
5	Junnon	40.30	205.00	19.66%	5	PEC-002	22.38	204.90	10.92%
6	CLIPSAL 500VA	0.12	198.50	0.06%	6	TLC-0003	10.37	203.90	5.09%
7	Midea 220V 630W	104.70	211.20	49.57%	7	LEVLTON 150W	0.71	196.80	0.36%
8	LTECH	2.05	207.99	0.99%	8	LEVLTON DSL06	14.73	190.10	7.75%
9	TCL 630W 220V	0.16	212.00	0.08%	9	Lutron scl-153P	0.92	192.10	0.48%

### 0-10V Dimming Curve

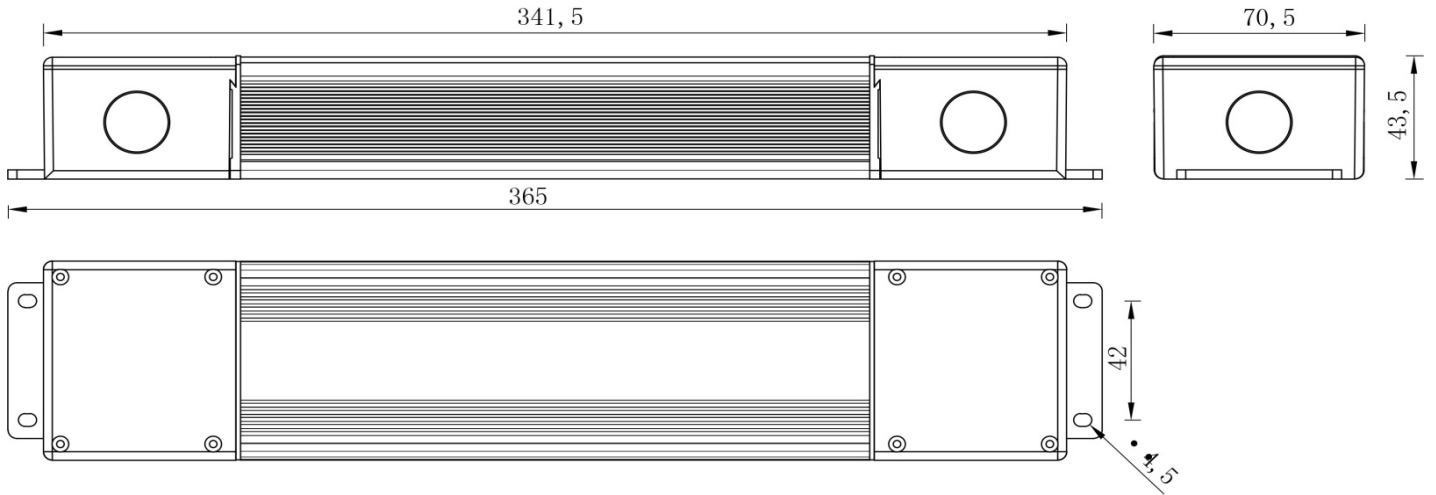


### Derating Curve (output load vs TEMP.)





## 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\***