



# LKAD012D



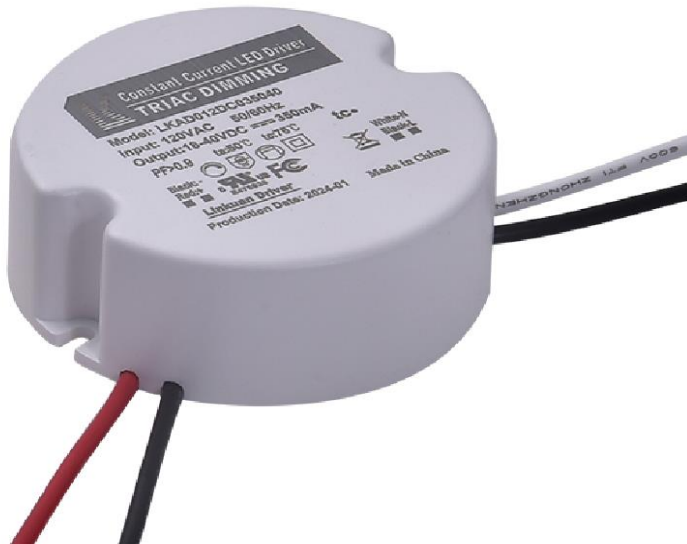
**Class2**

**SELV**

**TYPE HL**



**RoHS**



## Features

<b>Output:</b>	Constant Current
<b>Range:</b>	350mA-700mA@9-20V / 160mA-350mA@18-40V (fixed & preset by factory)
<b>PFC design:</b>	Built-in active PFC function
<b>Efficiency:</b>	Up to 82%
<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.
<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:		LKAD012DC035040	LKAD012DC030040	LKAD012DC070020
Certificate		CUL,CE,Rosh,		
Output	DC Voltage	18-40V	18-40V	9-20V
	Voltage Tolerance	±0.5V		
	Voltage Regulation	±0.5%		
	Rated current	350mA	300mA	700mA
	Rated power	14W		
	Load Regulation	±2%	±1%	
Input	Voltage Range	100-132VAC		
	Frequency Range	50/60hz		
	Power Factor(Typ. ) @full load	0.991 @100VAC	0.984@100VAC	0.992@100VAC
	THD(Typ. ) @ full load	<15%@120VAC & 277VAC		
	Efficiency(Typ.) @ full load	≥83%@120VAC	≥84%@120VAC	≥81%@120VAC
	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	φ65*25mm(Dia * H)		
	Packing	Cartons		
Notes	<p>1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Tolerance: includes set up tolerance and load regulation.</p>			



## Electrical Characteristics

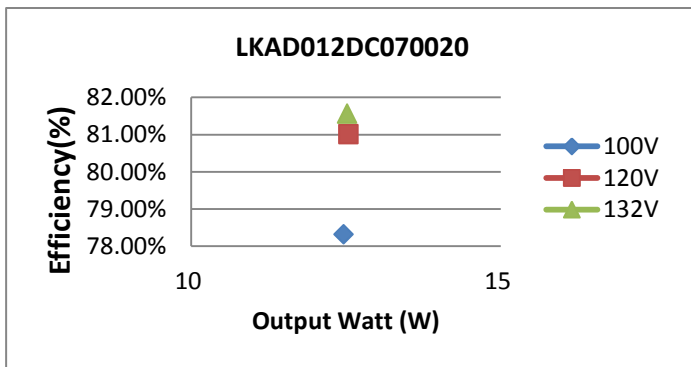
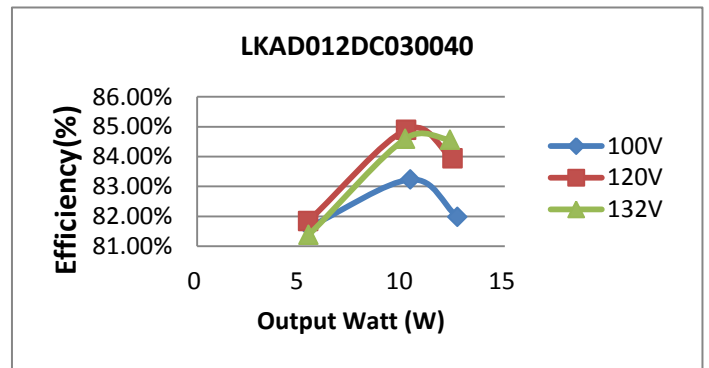
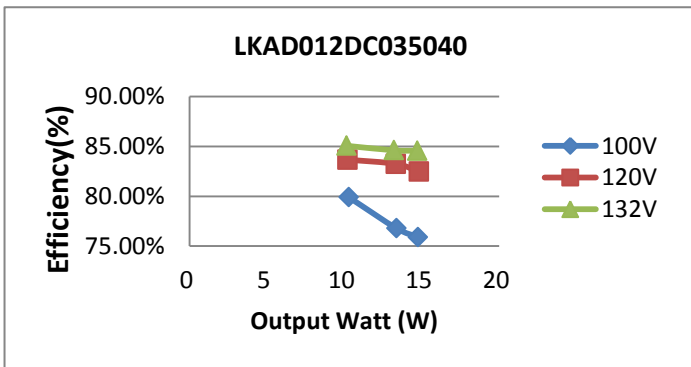
Model: LKAD012DC035040							
Input voltage ( Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage ( Vdc)	Output Current ( MA)	Output Power (W)	Efficiency (%)
100	150	12.88	0.991	30.00	343	10.29	79.89%
	204	17.40	0.993	40.00	334	13.36	76.78%
	228	19.45	0.993	45.00	328	14.76	75.89%
120	113	12.19	0.987	30.00	340	10.20	83.68%
	148	16.00	0.991	40.00	333	13.32	83.25%
	166	17.95	0.993	45.00	329	14.81	82.48%
132	90	11.92	0.983	30.00	338	10.14	85.07%
	117	15.60	0.987	40.00	330	13.20	84.62%
	130	17.40	0.989	45.00	327	14.72	84.57%

Model: LKAD012DC030040							
Input voltage ( Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage ( Vdc)	Output Current ( MA)	Output Power (W)	Efficiency (%)
100	68	6.68	0.984	18.00	303	5.45	81.65%
	128	12.50	0.994	36.00	289	10.40	83.23%
	158	15.48	0.996	45.00	282	12.69	81.98%
120	57	6.62	0.973	18.00	301	5.42	81.84%
	102	12.00	0.990	36.00	283	10.19	84.90%
	125	14.85	0.993	45.00	277	12.47	83.94%
132	50	6.68	0.963	18.00	302	5.44	81.38%
	87	12.00	0.986	36.00	282	10.15	84.60%
	105	14.58	0.990	45.00	274	12.33	84.57%

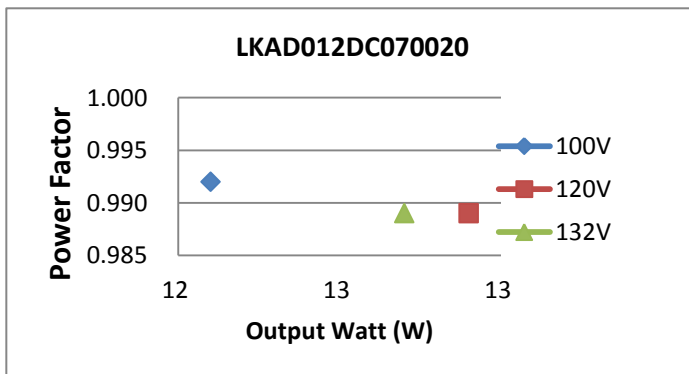
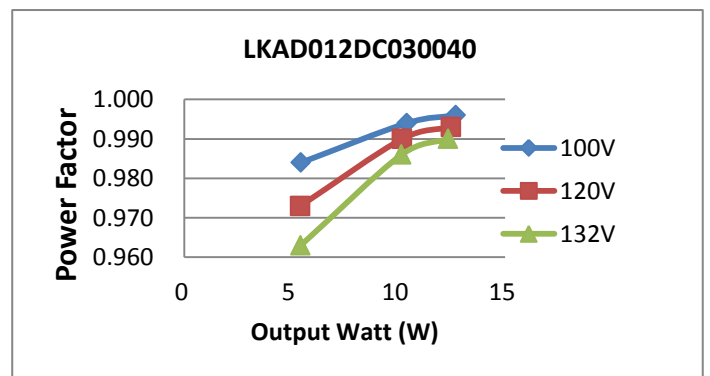
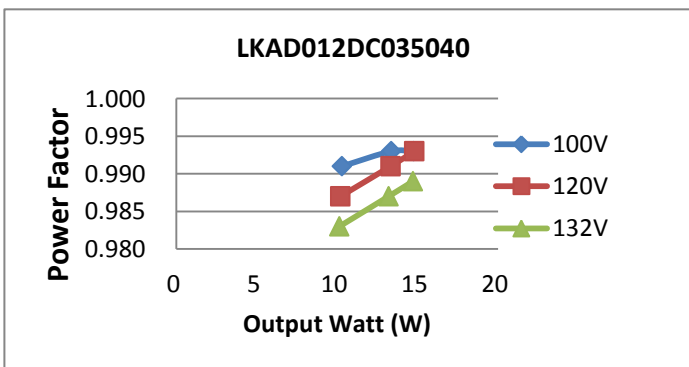
Model: LKAD012DC070020							
Input voltage ( Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage ( Vdc)	Output Current ( MA)	Output Power (W)	Efficiency (%)
100	16	160.38	0.992	20.00	623	12.46	78.32%
120	15	130.43	0.989	20.00	627	12.54	81.01%
130	15	119.39	0.989	20.00	626	12.52	81.56%



### Efficiency Curve (efficiency vs ouput watt)



### Power Factor Curve

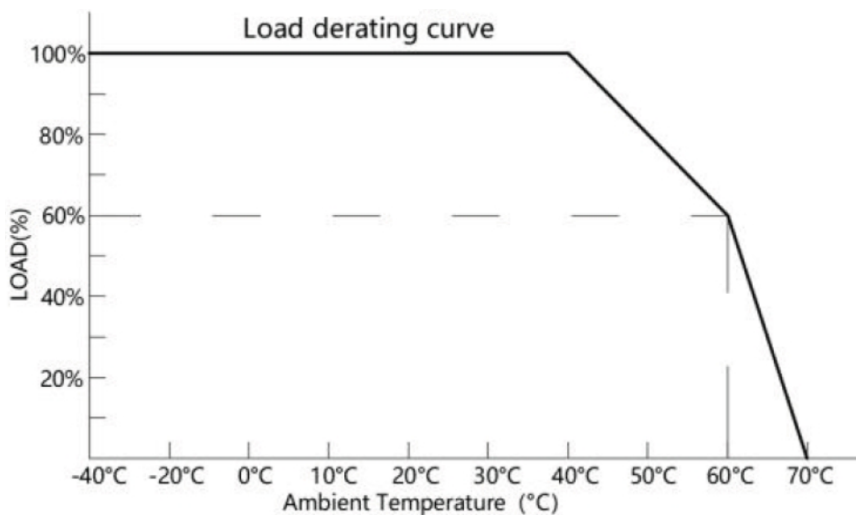




### Compatibility Testing for Phase Dimmer

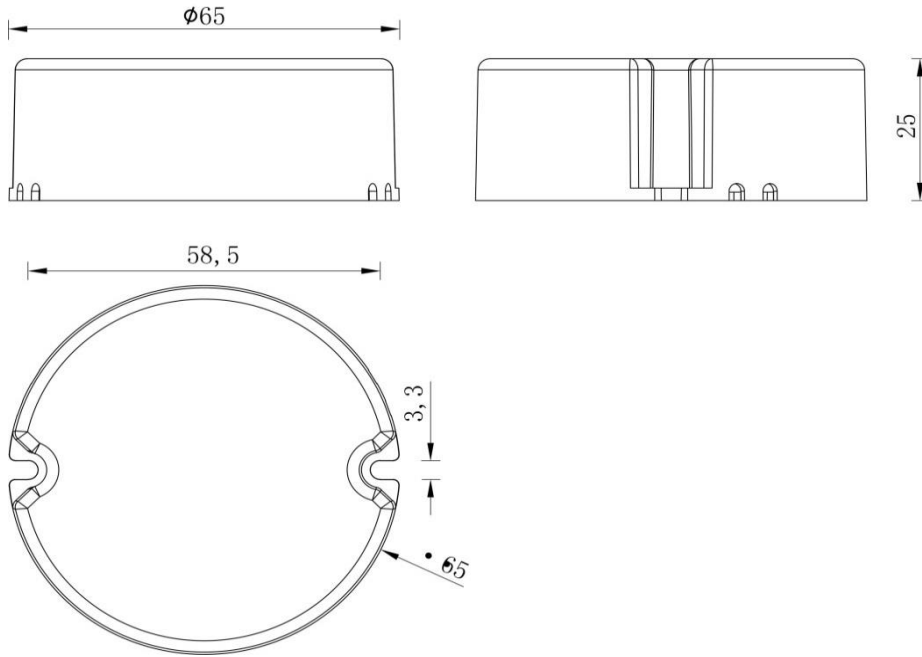
Test by US Standard 120V dimmers				
Model: LKAD012DC035040				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	LC211	1.19	11.22	10.61%
2	TLC-0005	0.80	11.44	6.99%
3	PEC-002	1.30	11.53	11.27%
4	TLC-0003	1.54	11.53	13.36%
5	LEVLTON 150W	0.51	11.51	4.43%
6	LEVLTON DSL06	0.84	11.08	7.58%
7	Lutron Scl-153P	0.97	11.47	8.46%
8	Lutron SELV-300P	0.10	11.69	0.86%

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

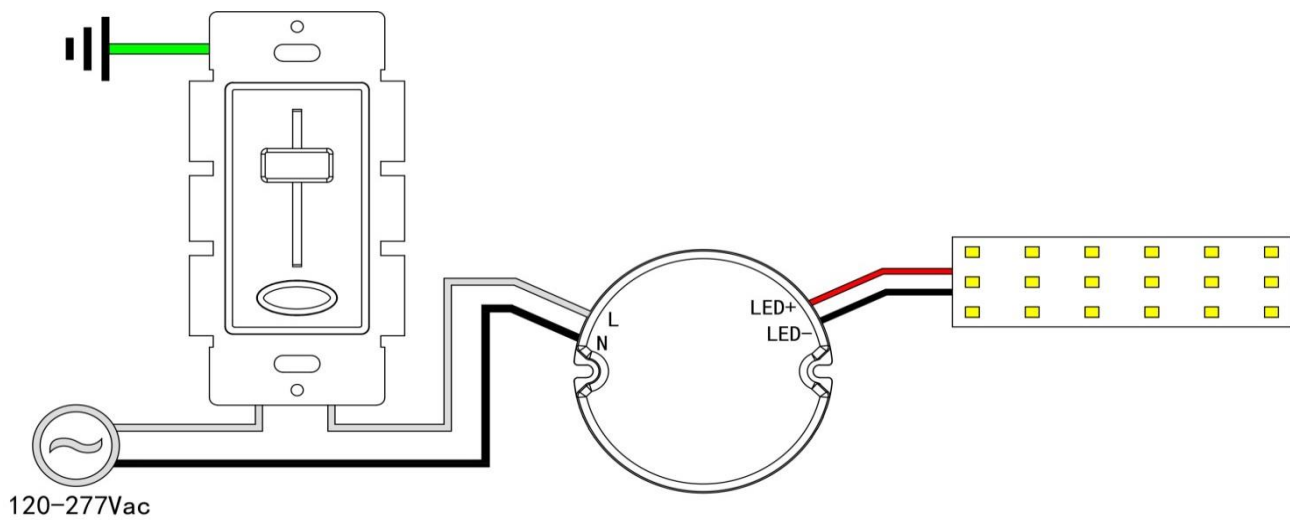




## Installation Dimension



## Wiring Diagram



1. Input cable 2\*18AWG, 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. Please make sure your connect these correctly otherwise your product will not function correctly and could be



## Dimming Operation

---

- 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.

## 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\***