LG-7012A

Multiple 12 Cell Narrow Adjustable Recessed Downlight LED

Project Information:	Project Name:
Fixture Type:	Location:

NARROWLINE

Narrow Recessed Downlight LED - 1x12 Square

Revolutionary narrow recessed downlight available in slim trim or trimless. Its simplified retrofit installation can be used in both new and existing spaces.

LED lighting engine is high performance, low power that provides outstanding reliability and color quality/consistency. 2700K, 3000K, 3500K, and 4000K color temperatures are available with 95 CRI.

- Life Rated for 40,000 hours at 70% lumen maintenance
- All testing reports are based on published industry procedures

Quick Info

Application New Construction / Remodeling	
Delivered Lumens Black Bevel - 1120lm (20W) I White Bevel - 1400lm (20W)	**Color Quality** 95 CRI, 2-step SDCM
Color Temperature 2700K 3000K 3500K 4000K	**Light Distribution** General
Input Voltage 120/277V	**Dimming** TRIAC/ELV
Trims Slim Trim - Aluminum powder coated	**Junction Box** IC Rated - REMOTE
Housing Ratings N/A	**Module Ratings** Damp Location
Guarantee 40,000 hrs I 3 years	**Additional Dimming Options** 0-10 / DALI Dimming / Lutron EcoSystem

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Ordering Guide

Example Number

LG-7012A N 30K 95 36 SF BBL WH T

Order Number

LG-7012A _ ___ __ __ __ ___ __

PRODUCT CODE

LG - 7012A

MOUNTING (OPTIONAL)

- ☐ N - New Construction Mounting Plate

COLOR TEMPERATURE

- ☐ 27K - 2700K
- ☐ 30K - 3000K (STANDARD)
- ☐ 35K - 3500K
- ☐ 40K - 4000K

CRI

- ☐ 95 - 95 CRI

BEAM SPREAD

- ☐ 24 °
- ☐ 36 ° (STANDARD)

LENS OPTICAL

- ☐ SF - Soft Focus (STANDARD)
- ☐ FR - Frosted
- ☐ LI - Linear Spread
- ☐ PR - Prismatic

BEVEL COLOR

- ☐ BBL - Black (STANDARD)
- ☐ BWH - White

FRAME COLOR

- ☐ WH - White (STANDARD)
- ☐ BL - Black

DIMMING OPTION

- ☐ T - Triac/ELV (STANDARD)
- ☐ D - DALI
- ☐ ECO - (Hi - lume Premier 0.1% Eco System LED Driver with Soft-on, Fade-to-black dimming technology)
- ☐ 0 - 10

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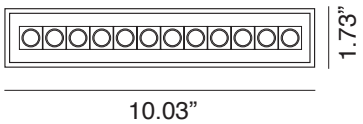
TRIM



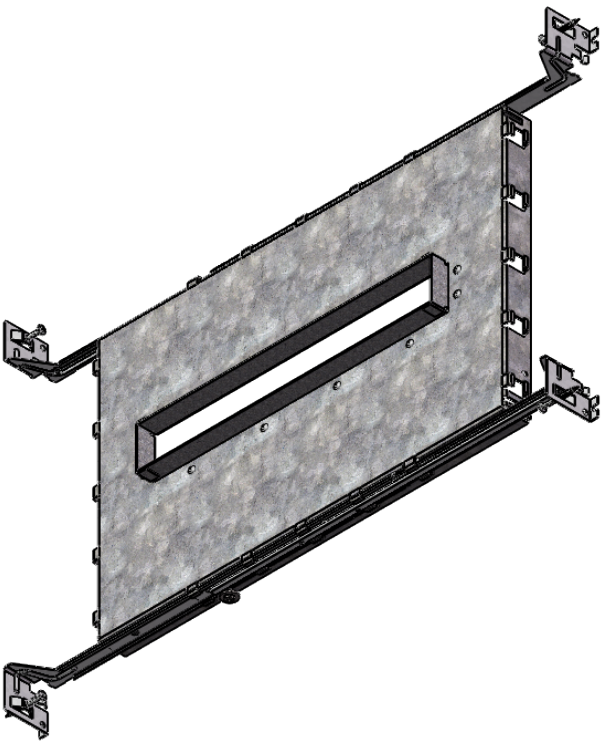
LED TYPE	LED OSRAM	
BEVEL	Black	White
DELIVERED LUMENS	1120	1400
WATTS	20W	
CRI	95	
COLOR TEMPERATURE	2700K / 3000K / 35000K / 4000K	
VOLTAGE	120 V / 277 V	
DIMMING	• TRIAC /ELV (Down to > 1%) - STANDARD • 0 -10 v (Down to > 5%) • Lutron (Hi-lume Premier 0.1 % Eco System LED Driver with Soft-on, Fade-to-black dimming technology) (Install remote, no junction box supplied) • DALI (Install remote, no junction box supplied)	
POWER SUPPLY	Constant current driver 24.6-38.4v/600mA	
BEAM SPREAD	24°/36°	
OPTICS	Soft Focus/ Frosted / Linear Spread/ Prismatic	
ADJUSTABILITY	Adjustable	
JUNCTION BOX	IC RATED - Remote	
FINISH	Aluminum Powder Coated	

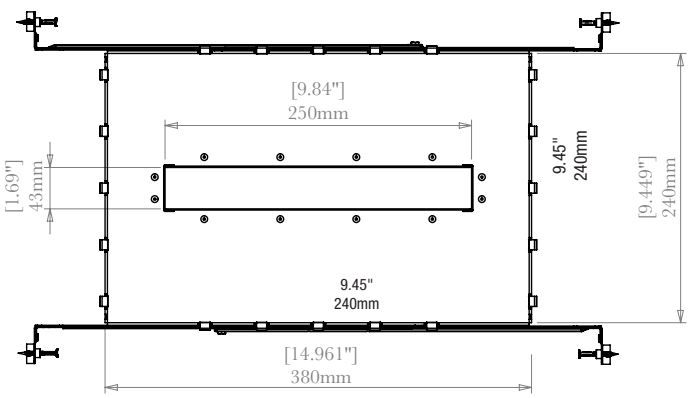
Product Features

- Revolutionary flush mounted slim trim design offers consistent aesthetics
- Energy efficient LED light engines
- Dimmable with a variety of commonly used drivers
- Fixtures can be used with all Smart House Systems such as Lutron, Vantage, Control4, Crestron and others
- Easy installation for new construction and remodel applications
- IC Rated UL approved fixtures
- Wet location rated
- Driver included

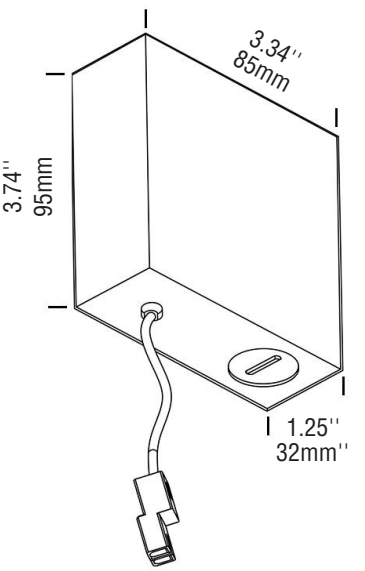
1003/12

New Construction Plate
For 7012A





Driver Case



LKAD019D-C

Class P SELV **TYPE HL** RoHS

Features

Output:	Constant Current
Range:	350-700mA@20-42V
PFC design:	Built-in active PFC function
Efficiency:	Up to 83%
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
Dimming Range:	0-100%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty

Specification

Model:		**LKAD019DC036042C**	**LKAD019DC050042C**	**LKAD019DC070042C**
Certificate		ETL,CE,Rosh,		
Output	DC Voltage	20-42V	20-42V	20-42V
	Voltage Tolerance	±0.5V		
	Voltage Regulation	±0.5%		
	Rated current	350mA	500mA	700mA
	Rated power	14.7W	21W	29.4W
	Load Regulation	±2%	±1%	±0.5%
Input	Voltage Range	120-277VAC		
	Frequency Range	50/60hz		
	Power Factor(Typ.) @full load	0.987@120VAC		
	THD(Typ.) @ full load	<15%@120VAC & 277VAC		
	Efficiency(Typ.) @ full load	≥82.76%@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℃±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	88*37*24mm(L * W * H)		
	Packing	Cartons		
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: LKAD019D-C 350mA

Input voltage (Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage (Vdc)	Output Current (MA)	Output Power (W)	Efficiency (%)
120	75	8.95	0.966	20.00	356	7.12	79.55%
	120	14.49	0.983	34.72	345	11.98	82.67%
	142	17.25	0.987	42.11	339	14.28	82.76%
240	49	10.00	0.814	19.85	369	7.32	73.25%
	71	15.40	0.881	34.65	353	12.23	79.43%
	82	18.18	0.904	42.11	346	14.57	80.14%
277	46	10.09	0.792	19.89	372	7.40	73.33%
	65	15.60	0.858	34.64	355	12.30	78.83%
	75	18.35	0.882	42.07	348	14.64	79.78%

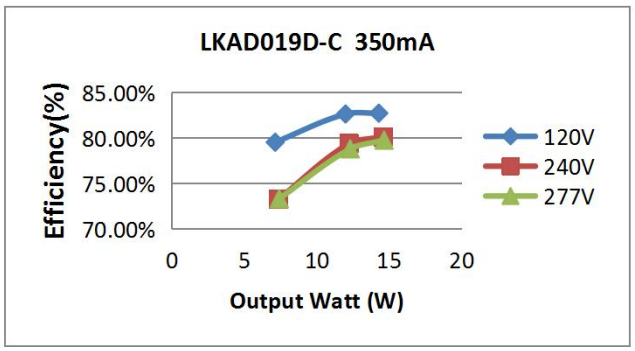
Model: LKAD019D-C 500mA

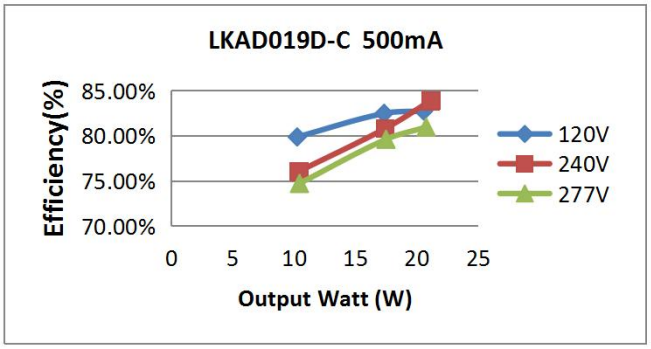
Input voltage (Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage (Vdc)	Output Current (MA)	Output Power (W)	Efficiency (%)
120	108	12.81	0.984	20.22	506	10.23	79.87%
	174	21.00	0.994	35.06	494	17.32	82.47%
	205	24.83	0.990	42.10	488	20.54	82.74%
240	64	13.63	0.874	20.21	513	10.37	76.07%
	96	21.54	0.927	34.95	498	17.41	80.80%
	111	25.20	0.942	42.88	493	21.14	83.89%
277	61	13.94	0.832	20.15	517	10.42	74.73%
	88	21.95	0.896	34.95	500	17.48	79.61%
	101	25.63	0.915	41.92	495	20.75	80.96%

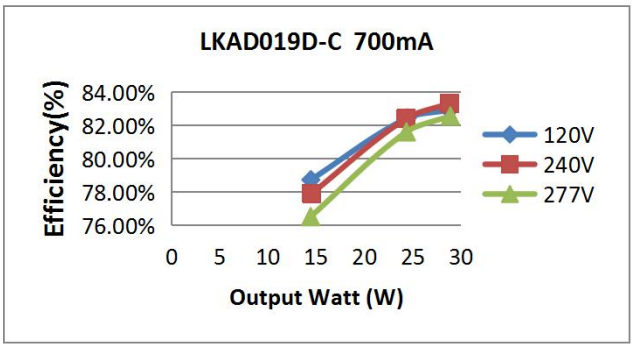
Model: LKAD019D-C 700mA

Input voltage (Vac)	Input Current (mA)	Input Power (W)	Power Factor	Output Voltage (Vdc)	Output Current (MA)	Output Power (W)	Efficiency (%)
120	157	18.34	0.990	20.57	702	14.44	78.74%
	254	29.64	0.990	35.47	689	24.44	82.45%
	297	34.72	0.999	42.09	684	28.79	82.92%
240	84	18.64	0.921	20.60	705	14.52	77.91%
	129	29.51	0.958	35.30	689	24.32	82.42%
	149	34.60	0.966	42.21	683	28.83	83.32%
277	77	18.84	0.881	20.45	705	14.42	76.52%
	115	29.82	0.934	35.27	690	24.34	81.61%
	133	35.00	0.947	42.25	684	28.90	82.57%

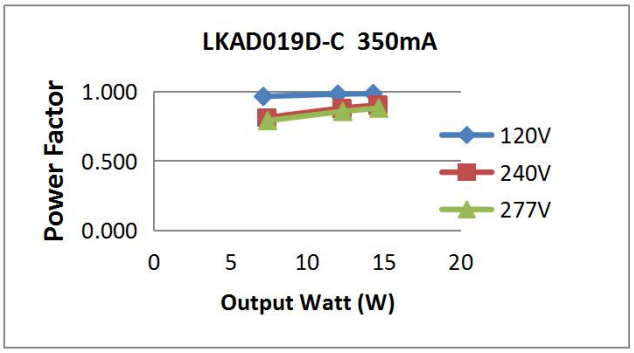
Efficiency Curve (efficiency vs ouput watt)

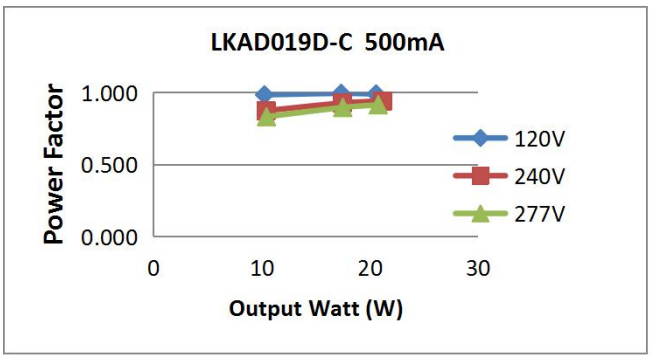


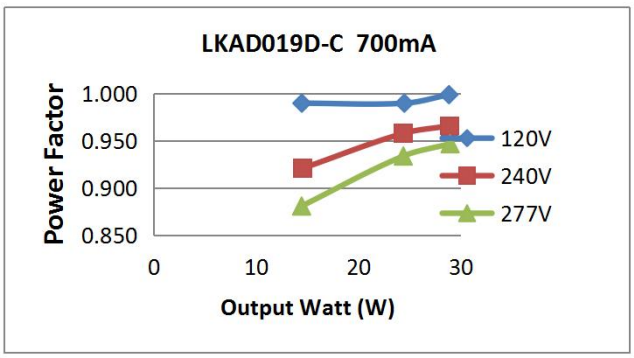




Power Factor Curve







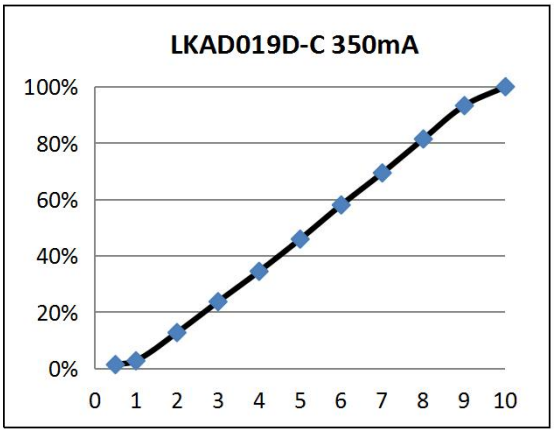
Compatibility Testing for Phase Dimmer

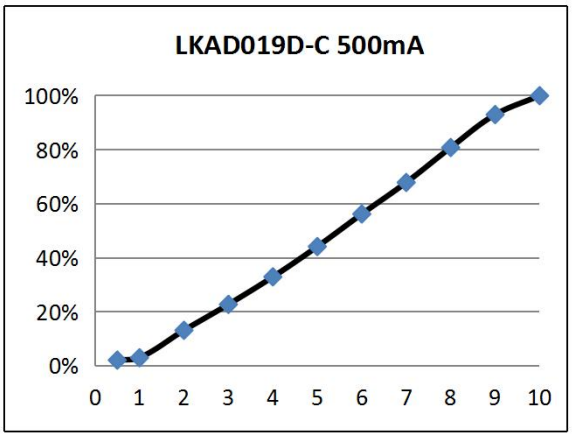
Test by US Standard 120V dimmers				
Model: LKAD019D-C 350mA				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	Lutron SB-1 600W	1.45	15.14	9.58%
2	LC211	1.33	15.23	8.73%
3	Lutron DVCL-253P-WH	1.67	15.33	10.89%
4	TLC-0005	2.53	15.27	16.57%
5	PEC-002	2.35	15.33	15.33%
6	TLC-0003	2.71	15.30	17.71%
7	LEVLTON 150W	1.33	15.27	8.71%
8	LEVLTON DSL06	1.67	15.23	10.97%
9	Lutron Scl-153P	1.27	15.12	8.40%

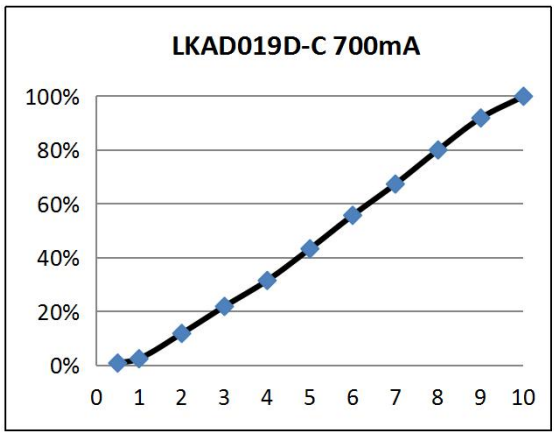
Test by US Standard 120V dimmers				
Model: LKAD019D-C 500mA				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	Lutron SB-1 600W	0.06	21.72	0.28%
2	LC211	0.13	21.77	0.60%
3	Lutron DVCL-253P-WH	2.18	21.69	10.05%
4	TLC-0005	2.23	21.80	10.23%
5	PEC-002	2.19	21.94	9.98%
6	TLC-0003	2.49	21.85	11.40%
7	LEVLTON 150W	3.30	22.36	14.76%
8	LEVLTON DSL06	3.74	23.33	16.03%
9	Lutron Scl-153P	3.07	21.09	14.56%

Test by US Standard 120V dimmers				
Model: LKAD019D-C 700mA				
NO	Dimmer Model	Min Watt (W)	Max Watt (W)	Dimming ratio (%)
1	Lutron SB-1 600W	0.07	30.04	0.23%
2	LC211	2.46	30.09	8.18%
3	Lutron DVCL-253P-WH	2.76	30.29	9.11%
4	TLC-0005	2.47	29.79	8.29%
5	PEC-002	2.32	30.27	7.66%
6	TLC-0003	2.62	30.28	8.65%
7	LEVLTON 150W	2.23	29.67	7.52%
8	LEVLTON DSL06	2.53	30.21	8.37%
9	Lutron Scl-153P	2.73	30.43	8.97%

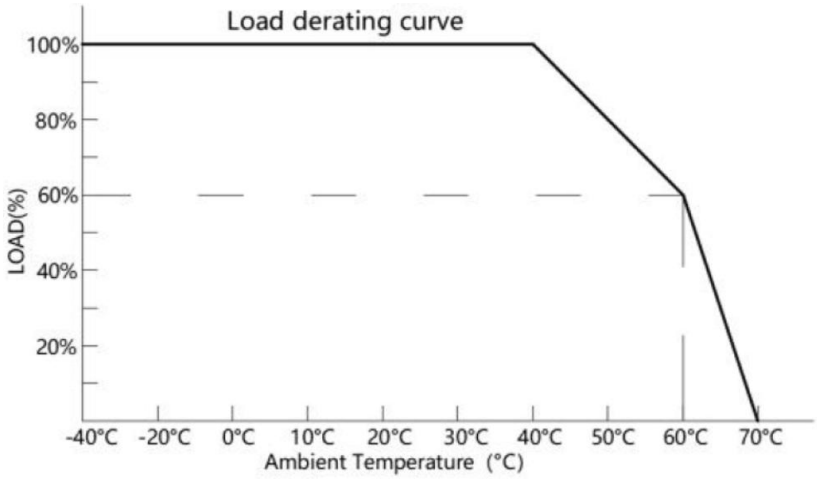
0-10V Dimming Curve



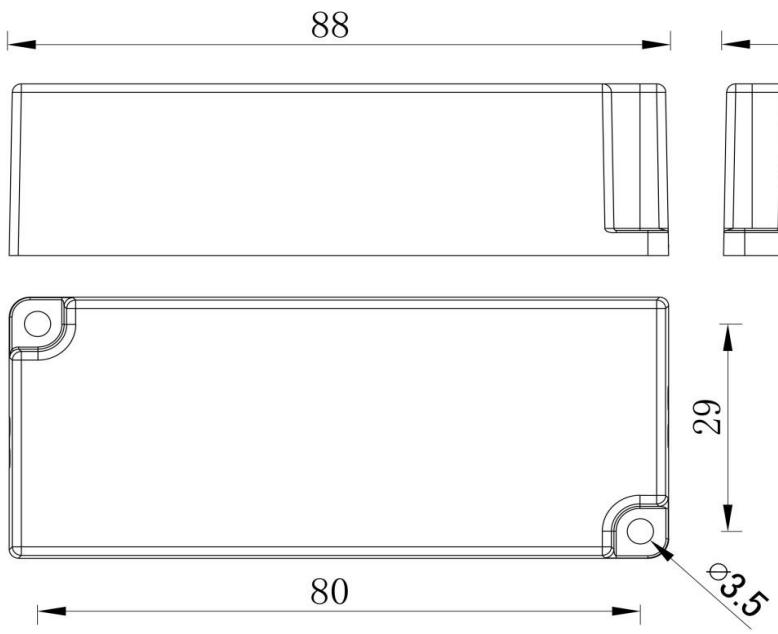




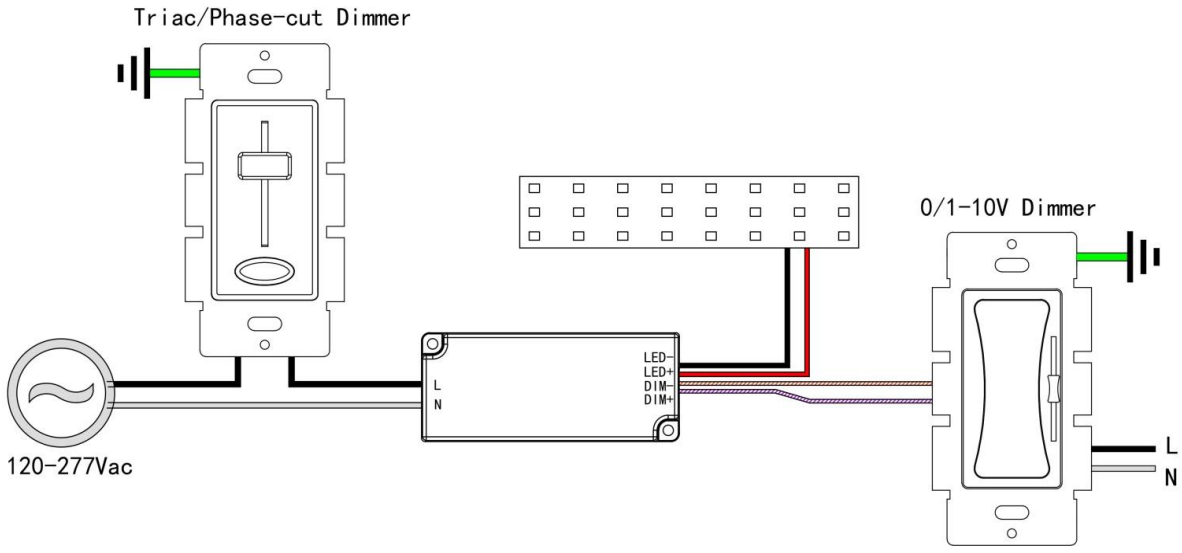
Derating Curve (output load vs TEMP.)



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. 0-10V/1-10V 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