BEULUX

Specification Sheet

DUD018IP65 I 18W

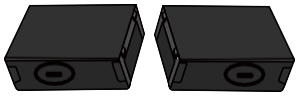
Ultra-Thin Constant Voltage Dimmable LED Driver

5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

Key Features

- 5-way universal dimming
- Smooth flicker-free dimming, down to 0.1%
- PF>0.65, dimming range: 0.1-100%, flicker-free
- PWM Output: 4000Hz constant frequency
- Short-circuit, over-temperature, over-load protection
- Super low loading request, works perfect at 10-100%
- Ultra-Thin aluminum housing for excellent heat dissipation
- Suitable for dry, damp, wet location, IP65
- Dimming curves can be customized
- 5-year Warranty

Optional accessory
Junction Box



Intertek FC WET IP65 TITLE 24 COMPLIANT 5 YEAR DIMMABLE

TYPE HL Class P Class 2

12V or 24VDC 110-277V

Model Number		DUD018IP65-12V	DUD018IP65-24V
Output	Rated Power	18W	
	Rated Voltage	DC12V	DC24V
	Rated Current	1.5A	0.75A
	Voltage Tolerance	±0.5V	
	Voltage Regulation	±0.5%	
	Load Regulation	±1%	
Input	Voltage Range	110-277V	
	Frequency Range	47-63Hz	
	Efficiency (Typ.)	80% @120VAC	
	THD	THD<10% (@100% load)	
	Power Factor (Typ.)	0.65 @ 120VAC (full loading)	
	AC Current (Typ.)	0.34A	
	Inrush Current (Typ.)	<10A	
	Leakage Current	<0.5mA	
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.	
	Overload	≤120% Hiccup mode, recovers automatically after fault condition is removed.	
	Over Temperature	100℃±10℃ shut down o/p voltage, automatically recover after cooling.	
Environment	Working Temp.	Tcase = -40℃ ~ +60℃ (Please refer to “OUTPUTLOAD vs TEMPERATURE” section)	
	Working Humidity	20 ~ 95% RH non-condensing	
	Storage Temp. Humidity	-40 ~ +90, 10 ~ 95% RH	
	Temp. Coefficient	±0.03%/℃ (0～50℃)	
	Vibration	10-500Hz,2G 12 minutes/cycle, Period 72 minutes each along X,Y,Z axes	
Safety & EMC	Safety Standards	UL8750	
	Withstand Voltage	I/P-shell:1.88KVAC	
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH	

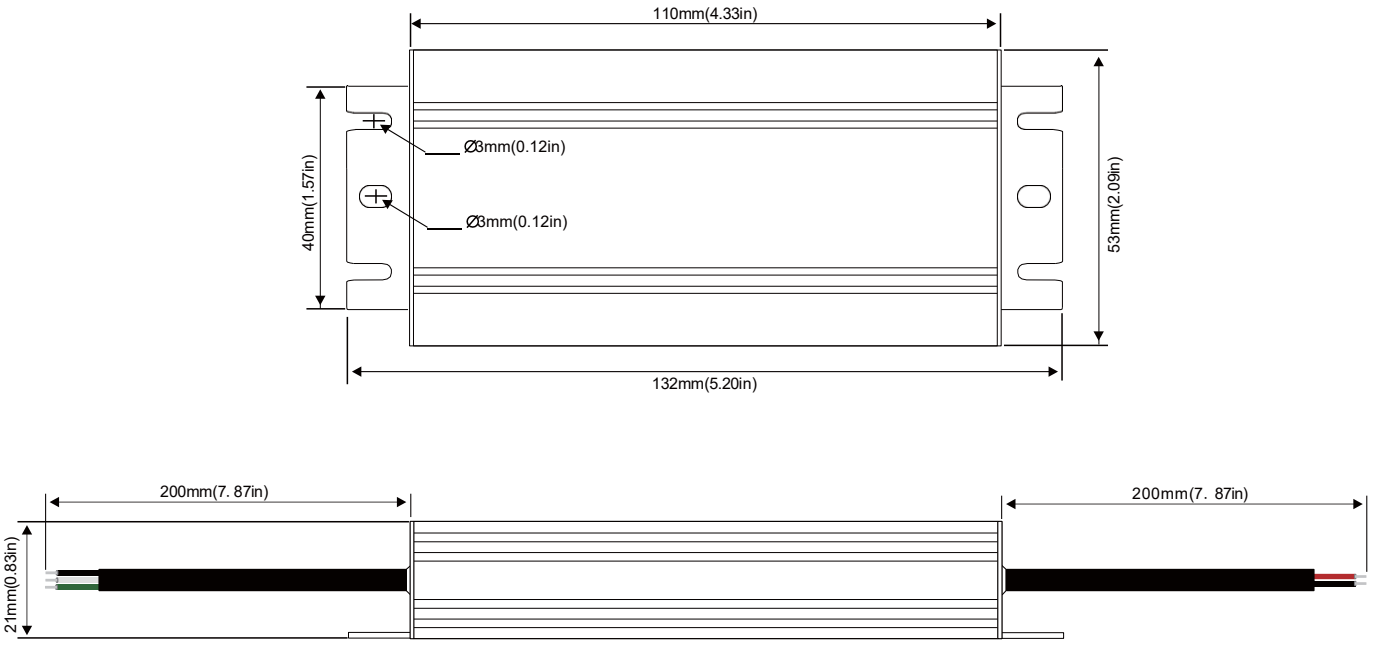
DUD018IP65 I 18W

Ultra-Thin Constant Voltage Dimmable LED Driver

5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

Mechanical Diagrams

Dimension:
5.2"L x 2.09"W x 0.83"H



Wire Specification

LPM-J	Input			Output			0/1-10V Dimming		
Power	Function	Color	Spec.	Function	Color	Spec.	Function	Color	Spec.
18W	AC L	Black	18AWG	DC+	Red	18AWG	Dim+	Purple	18AWG
	AC N	White	18AWG	DC-	Black	18AWG	Dim-	Pink	18AWG
	Ground	Green	18AWG	/	/	/	/	/	/

DUD018IP65 I 18W

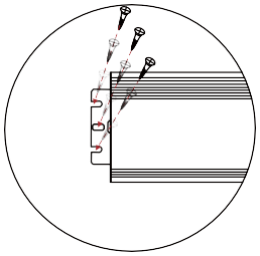
Ultra-Thin Constant Voltage Dimmable LED Driver

5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

Installation

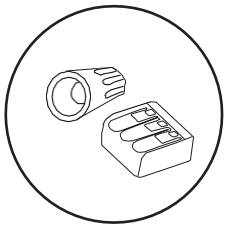
Mounting

1. This driver must be installed in a well-ventilated area free from explosive gages and vapors. Air circulation is essential for heat dissipation.
2. Recommended spacing between LED drivers should be a minimum of 4" (100mm).
3. Do not mount driver close to or above objects that can radiate heat. Vertical mounting is highly recommended.
4. Select an appropriate location that is able to support the weight of the product.
5. Use the mounting tabs on the left and right side of the driver to mount the product.



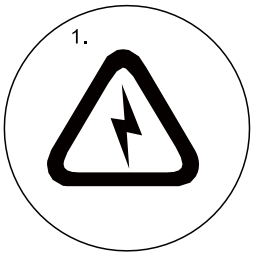
Vertical mounting

Connection Preparation

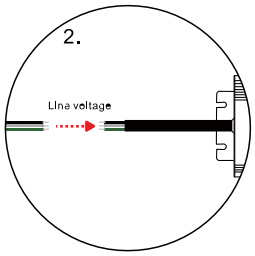


Only use certified components in accordance with national and local electric codes.

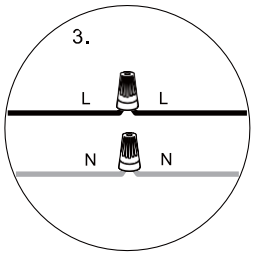
Input Connections & Grounding



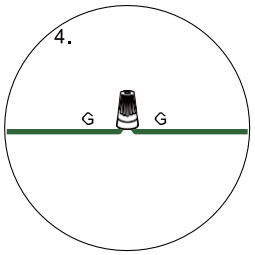
Ensure power is disconnected at the source



Route line voltage input wires and ground wire through strain relief and knockout.

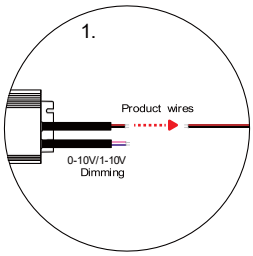


Connect black input wire (L) and input wire (N) to line voltage.

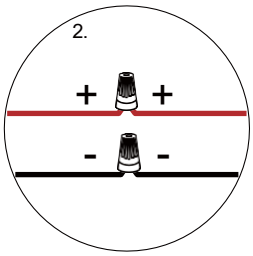


Connect green wire (ground) to input ground wire.

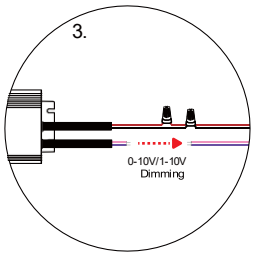
Output Connections



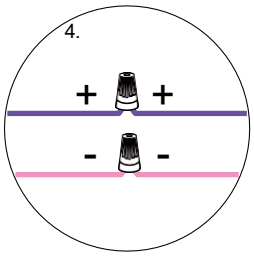
Route low voltage product wires through strain relief and knockout.



Securely connect driver's black wire(-) and red wire(+) to low voltage product, matching polarity.



If available, route 0-10V/ 1-10V dimming wires through strain relief and knockout.



Connect pink wire (-) and purple wire (+) to dimmer, matching polarity. Secure wire compartment cover when completed.

DUD018IP65 I 18W

Ultra-Thin Constant Voltage Dimmable LED Driver

5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

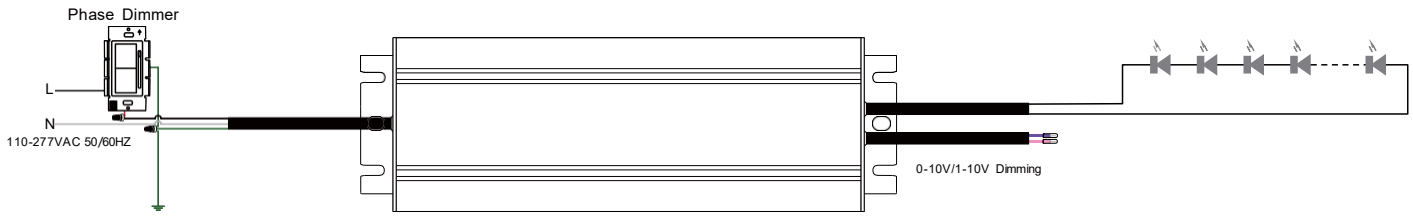
Connecting Diagram

Using TRIAC/Phase cut dimming

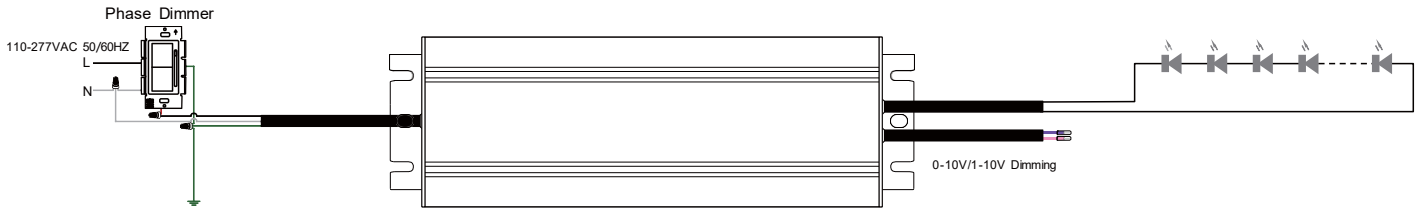
1. Through a phase-dimmer or lighting system, control the input AC phase line (L) and adjust the output PWM
2. Triac dim mode: Forward phase & reverse phase, MLV, ELV dim
3. Please try to use dimmers with power at least 1.5 times as the output power of the driver.

Wiring Diagram

A. Triac/MLV (Leading Edge) Dimmer Wiring Diagram



B. Electronic Low Voltage (ELV) Dimmer Wiring Diagram



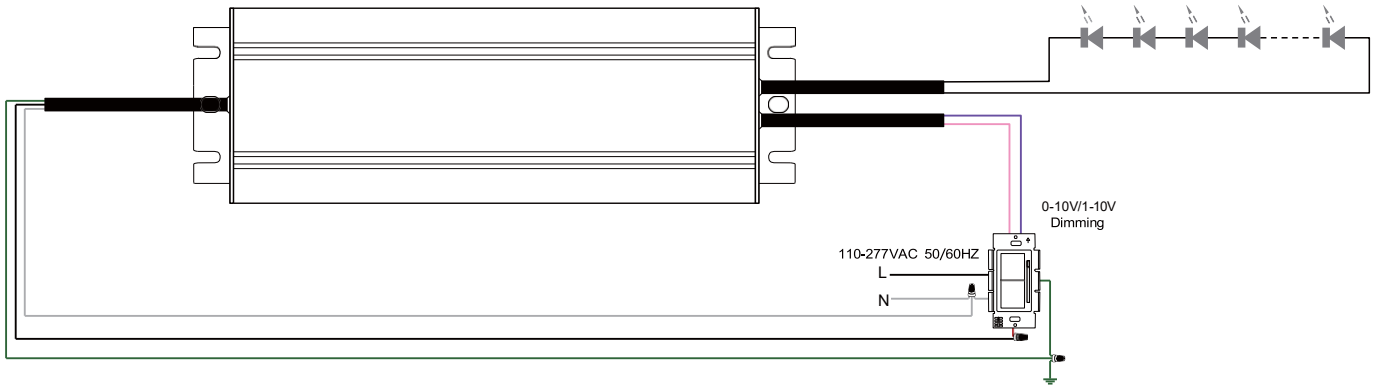
DUD018IP65 I 18W

Ultra-Thin Constant Voltage Dimmable LED Driver

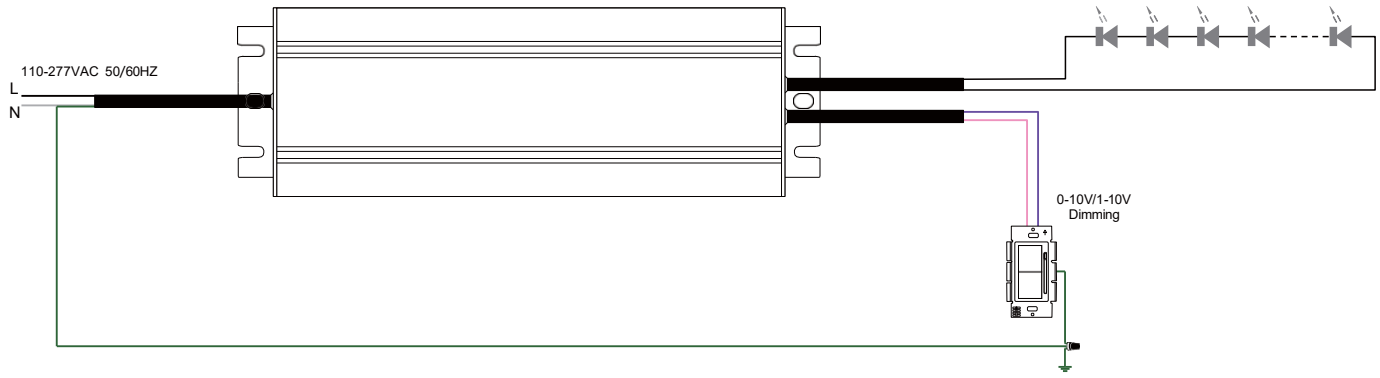
5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

Wiring Diagram

C. 0-10V/1-10V Dimmer Wiring Diagram
(The driver input is connected to the dimmer.)



D. 0-10V/1-10V Dimmer Wiring Diagram
(The driver is independently connected to the input.)

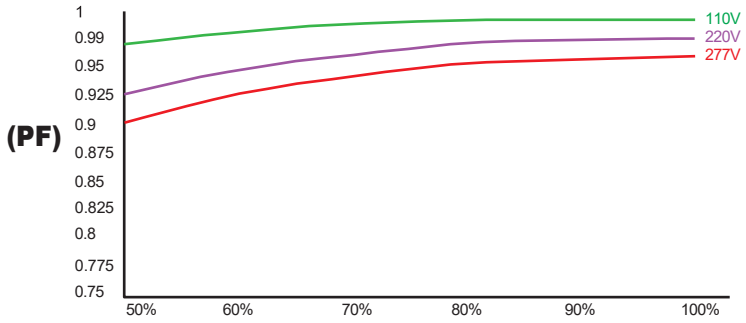
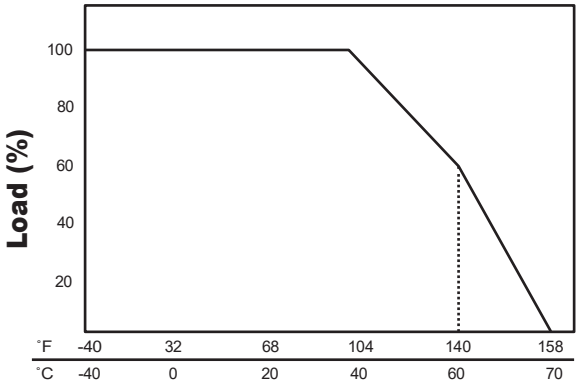


DUD018IP65 I 18W

Ultra-Thin Constant Voltage Dimmable LED Driver

5-IN-1 Dimming I Triac/0-10V/1-10V/10V PWM/Potentiometer dimming

PFC Load Graph



Load vs Ambient Temperature