FlowLite

Specification Sheet
Constant-Voltage LED Driver

Universal 5-in-1 Dimmable Driver FL-DU5

A 24V DC constant-voltage driver with five dimming methods in one unit: TRIAC (phase-cut), 0–10V, 1–10V, potentiometer and 10V PWM. Seven wattages from 30 W to 600 W, on a universal 100–277VAC input, in a junction-box housing.

AT A GLANCE

Input	100–277VAC (30–96 W); 110–277VAC (150–600 W)
Dimming	TRIAC/phase, 0–10V, 1–10V, potentiometer, 10V PWM; 0–100%
Minimum load	20%
Class 2	30 W and 60 W models
Location	Dry, damp and wet locations
Warranty	5 years



ORDERING GUIDE

MODEL	WATTAGE	VOLTAGE
FL-DU5-	☐	☐
	30 30 W **60** 60 W **96** 96 W **150** 150 W **200** 200 W **300** 300 W **600** 600 W	**24** 24V DC

Example: **FL-DU5-96-24** (96 W, 24V DC). 30 W: FL-DU30-24.

FEATURES

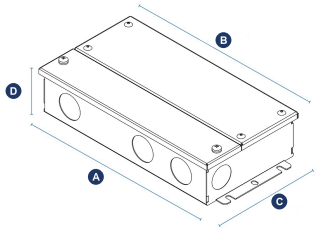
- Five dimming methods in one driver: TRIAC (phase-cut), 0–10V, 1–10V, potentiometer and 10V PWM
- 24V DC constant-voltage output, 30 W to 600 W
- Universal input: 100–277VAC (110–277VAC from 150 W up)
- Power factor up to 0.99 and THD under 20% at full load
- Short-circuit, overload and over-temperature protection
- Junction-box housing with separate input and output wiring
- Rated for dry, damp and wet locations

MODELS & PERFORMANCE

MODEL	RATED POWER	RATED CURRENT	INPUT VOLTAGE	MAX AC CURRENT	EFFICIENCY 120V / 277V	POWER FACTOR 120V / 277V	CARTON
FL-DU30-24	30 W	1.25 A	100–277VAC	0.5 A	≥79% / ≥80%	0.99 / 0.95	20 pcs
FL-DU5-60-24	60 W	2.5 A	100–277VAC	0.9 A	98% / 95%	0.98 / 0.95	10 pcs
FL-DU5-96-24	96 W	4 A	100–277VAC	1.3 A	83% / 86%	0.95 / 0.95	10 pcs
FL-DU5-150-24	150 W	6.25 A	110–277VAC	1.8 A	85% / 87%	0.99 / 0.94	10 pcs
FL-DU5-200-24	200 W	8.33 A	110–277VAC	2.3 A	86% / 88%	0.98 / 0.95	10 pcs
FL-DU5-300-24	300 W	12.5 A	110–277VAC	3.4 A	85% / 90%	0.99 / 0.95	10 pcs
FL-DU5-600-24	600 W	25 A	110–277VAC	5.97 A	90.5% / 93.45%	≥0.95	5 pcs

Typical values at full load (30 W efficiency: minimum; 30 W AC current at 100VAC). Dimensions in inches; 600 W size 13.46 × 11.22 × 6.69 in (L × W × H), no drawing.

DIMENSIONS



WATTAGE	A	B	C	D
30 W	5.95	–	3.54	1.53
60 W	7.40	6.89	3.75	1.72
96 W	8.66	8.07	3.75	1.72
150 W	10.26	9.40	4.17	1.92
200 W	10.26	9.40	4.17	1.92
300 W	10.94	10.07	4.33	1.92

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TECHNICAL SPECIFICATIONS

OUTPUT

DC voltage	24V
Voltage tolerance	±0.5V
Voltage regulation	±0.5%
Load regulation	±1% (30 W: ±2%)
Minimum load	20%

INPUT

Voltage range	100–277VAC (30–96 W); 110–277VAC (150–600 W)
Frequency range	47–63 Hz (600 W: 50–60 Hz)
THD (full load)	<20% (600 W: ≤10% at 120VAC)
Inrush current (typ.)	30 W: 7 A, 420 µs at 50%, 120VAC; 12 A, 480 µs at 50%, 277VAC 60 W: 22.4 A, 82 µs at 50%, 120VAC; 42.4 A, 47 µs at 50%, 277VAC 96 W: 20 A, 1.6 ms at 50%, 120VAC; 25 A, 1.2 ms at 50%, 277VAC 150 W, 200 W: 15 A, 1.4 ms at 50%, 120VAC; 30 A, 1.4 ms at 50%, 277VAC 300 W: 35 A, 960 µs at 50%, 120VAC; 43 A, 1 ms at 50%, 277VAC 600 W: 52 A, 810 µs at 50%, 110VAC; 76 A, 148 µs at 50%, 277VAC
Leakage current	<0.5 mA

PROTECTION

Short circuit	Output shuts down; re-power to recover after the fault is removed
Overload	≤120%, hiccup mode, auto recovery (30 W: re-power to recover)
Over-temperature	212°F (100°C) ±10°C: output shuts down, recovers automatically after cooling

ENVIRONMENT

Working temperature	-40°F to +140°F (-40°C to 60°C)
Working humidity	20–90% RH (30–96 W); 20–95% RH (150–600 W)
Storage temperature	-40°F to +176°F (-40°C to 80°C)
Temperature coefficient	±0.03% / °C (0–50°C)
Vibration	10–500 Hz
Location	Dry, damp and wet locations

SAFETY & EMC

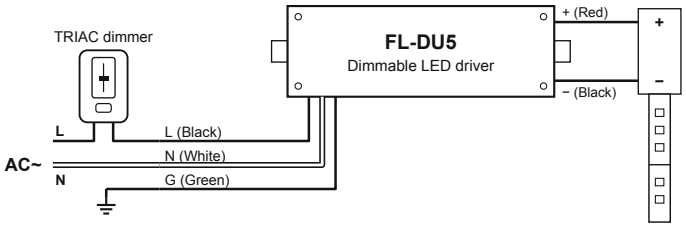
Withstand voltage	1.88 kVAC (30 W: 1.8 kVAC)
Isolation resistance	100 MΩ / 500VDC / 25°C / 70% RH
EMC emission	FCC 47 CFR Part 15, Subpart B
Output	Class 2 (30 W and 60 W models)

PHYSICAL

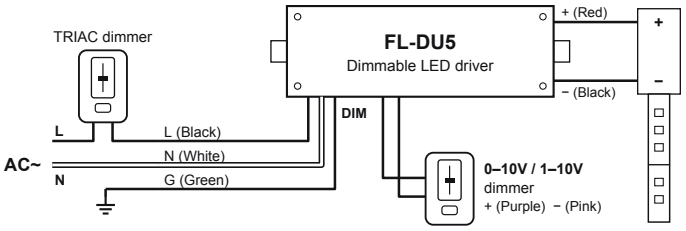
Net weight	2.35 lb (1.07 kg), 60 W
Color	Black

WIRING DIAGRAMS

1 TRIAC / phase dimming (primary)

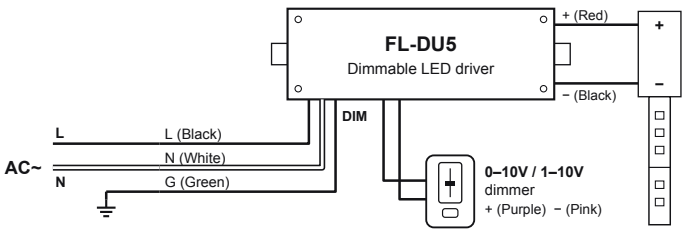


2 TRIAC + 0–10V / 1–10V

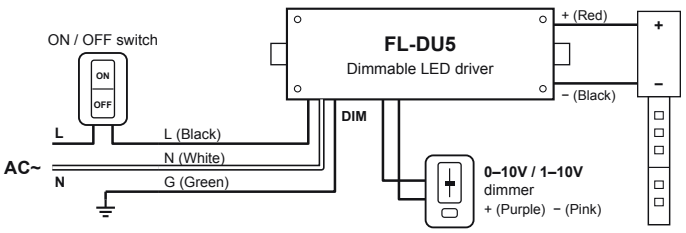


Set both dimmers to 100%, then operate one or the other.

3 0–10V / 1–10V / 10V PWM / potentiometer (secondary)



4 ON / OFF switch + 0–10V / 1–10V



• For reference only; follow the dimmer manufacturer's wiring diagram. Full steps are on the FL-DU5 installation sheet.