

Ldrive 42W

Constant Current Wattage Selectable
Tunable LED Driver



Product Overview

Ldrive 42W is controllable, dual-channel constant current LED driver with selectable output current. It operates on 220–240V AC input voltage range. This high efficiency driver protects from short circuit, overload, no-load and surge.

The device can be configured, commissioned, and controlled from any mobile device super-quick and can connect to the Lumos Controls cloud for data analytics.

The ecosystem is listed by the **Design Lights Consortium (DLC)**, qualifying it for energy conservation incentive programs and rebates by utility companies.

Specifications

Electrical

Specifications	Value	Remarks
Rated supply voltage	220–240 VAC	
Max supply voltage	198–264 VAC	
Mains frequency	50–60Hz	
Max input current	0.3A	230V, 50Hz, Full load @1050mA output current
Max input power	48.56W	230V, 50Hz, Full load @1050mA output current
Typical power consumption	1.63W	230V, 50Hz, No load
Max output power	42W	
Typical efficiency	86%	230V, 50Hz, Full load @1050mA output current
Power factor	0.98	230V, 50Hz, Full load @1050mA output current
Output current	630–1050mA	Adjusted by dip switch
Output current tolerance	±7.5%	
Max output voltage	50V	
Output voltage range	30–40VDC	
THD	<15%	230V, 50Hz, Full load @1050mA output current

Features

- Selectable constant LED current through dip switch
- High efficiency >85% and low THD <15%
- Power factor greater than 0.9
- Overload, short circuit, no load and surge protection
- BLE 4.2 based non-flooding intelligent communication
- Zero downtime Over-the-Air (OTA) firmware updates

Specifications	Value	Remarks
Output LF current ripple	±5%	<120Hz
Turn on delay	<1s	230V, 50Hz, Full load
Inrush current	27A	27A/72us 240V, 50Hz, Full load
Burst protection voltage	1kV	
Surge transient protection	1kV 2kV	@Line to Neutral @Line/Neutral to Earth
Dimming range	0–100%	1000 steps resolution
Dimming curve	linear (default)/ logarithmic	

Bluetooth

Specifications	Value	Remarks
Frequency range	2402–2480MHz	
Max output power	7dBm	
Receive sensitivity	–92dBm	
Connection distance (device to device)	45m(147.6 ft)	Vary depending on the installation environment

Environmental

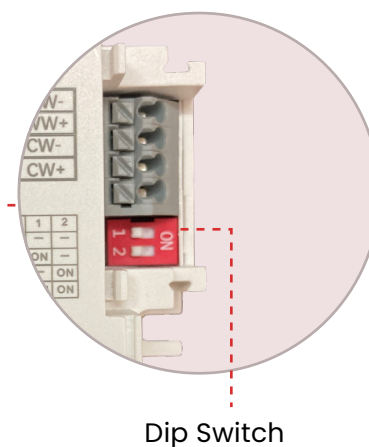
Specifications	Value	
Operating temperature	-20 to 55°C (-4 to 122°F)	@Life-time 50,000h
Case temperature	75 °C (167°F)	
Storage temperature	-40 to 80°C (-40°F to 176°F)	
Relative humidity	5-85%	
Lifetime	50,000h	@50°C
IP rating	IP20	Indoor use only

Mechanical

Specifications	Value	Remarks
Dimension	6.7 x 1.7 x 1.2in (169.5 x 43 x 30mm)	L x W x H
Weight	224.5g(7.919oz)	
Case material	Polycarbonate	White
Flammability rating	UL 94 V-0	

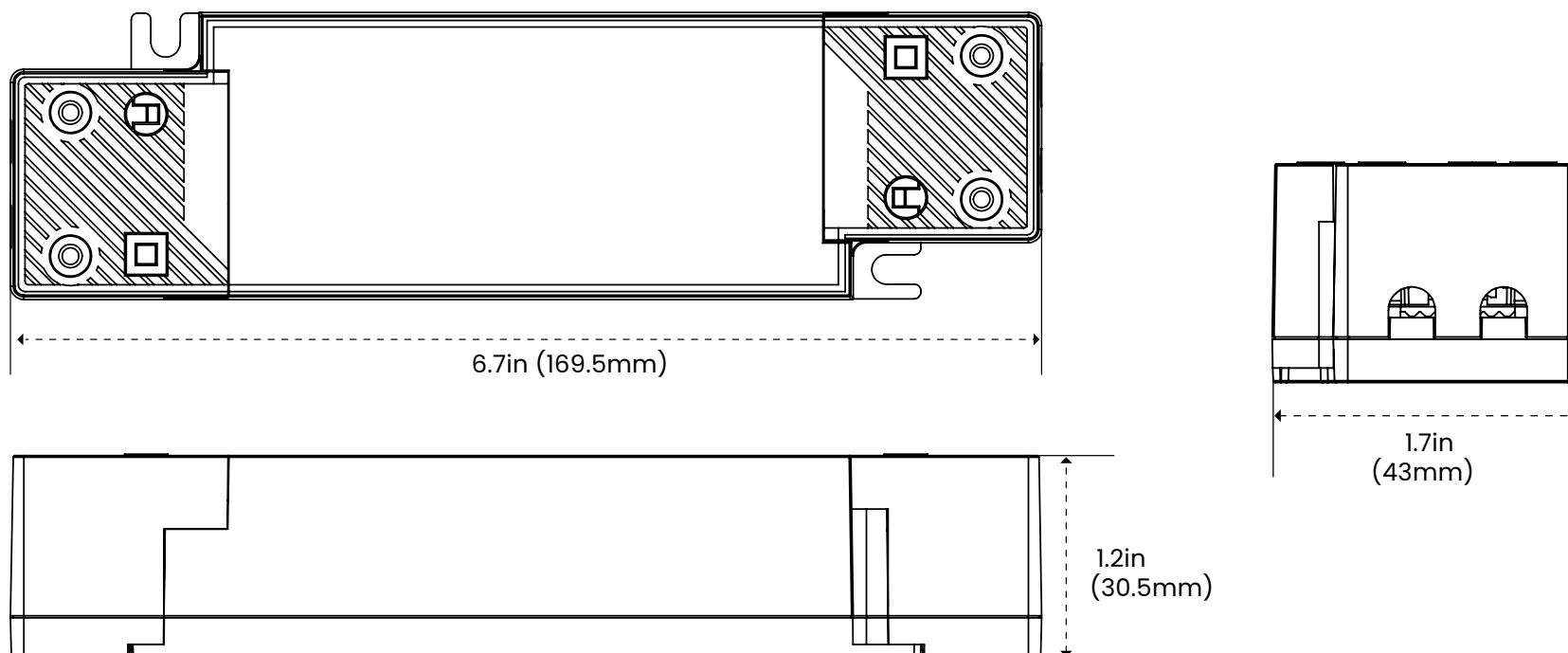
Output Current Setting Using Dip Switch

Max Output Power	Output Voltage	Output Current	Status of Dip Switch	
			1	2
25W	30-40V	630mA	ON	ON
32W		800mA		ON
36W		900mA	ON	
42W		1050mA		



Dip Switch

Product Dimensions



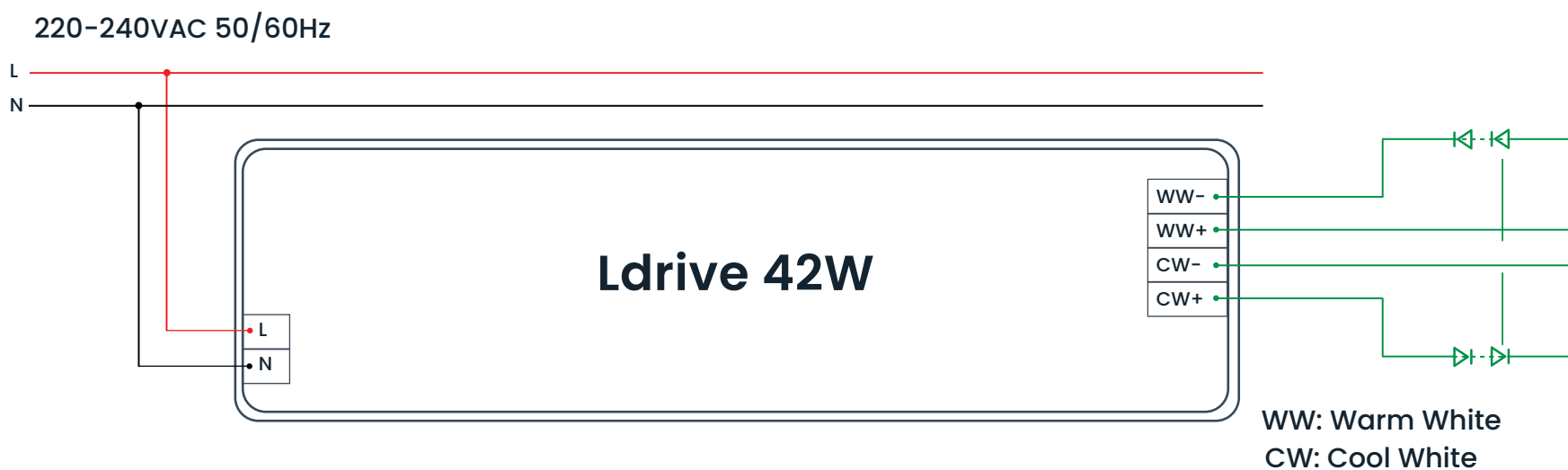
Connector Description



Pin	Symbol	Description
1	L	AC Input Line
2	N	AC Input Neutral
3	WW-	Warm White-
4	WW+	Warm White+
5	CW-	Cool White-
6	CW+	Cool White+

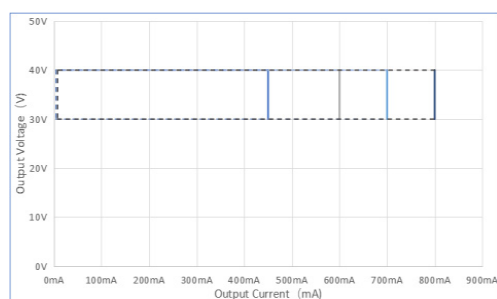
Wiring

The wiring can be in stranded wires with ferrules or solid with a cross section of 16-18AWG (0.75-1.5sq.mm). Strip 8.5- 9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals. Use one wire for each terminal connector.

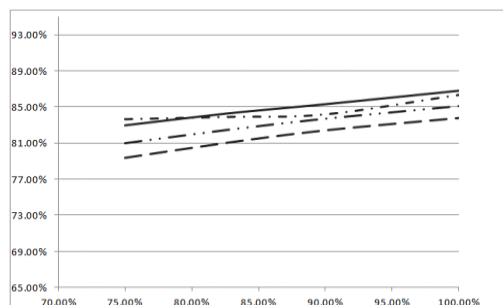


Electrical Values

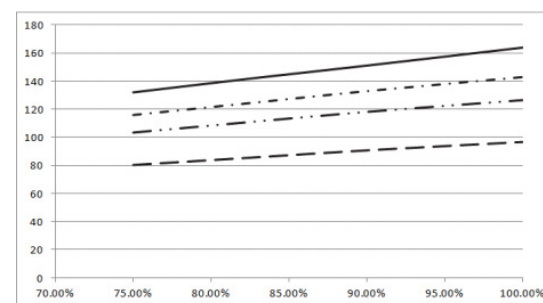
Operating window



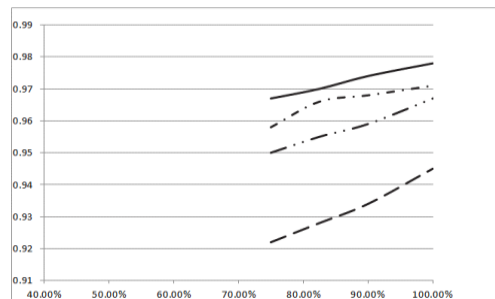
Efficiency vs load (@230VAC 50Hz)



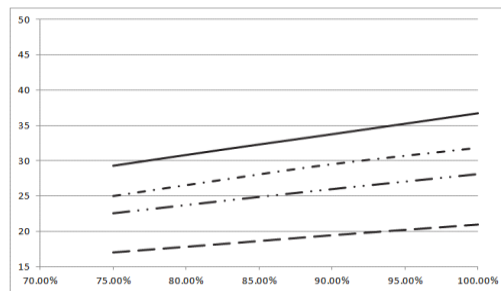
Input current vs load (@230VAC 50Hz)



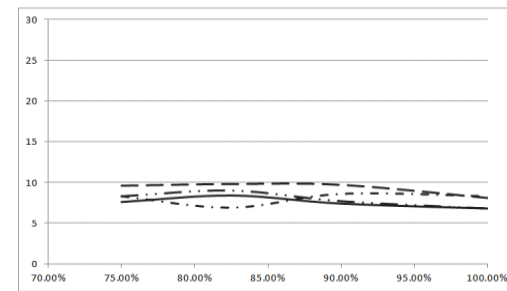
Power factor vs load (@230VAC 50Hz)



Input power vs load (@230VAC 50Hz)

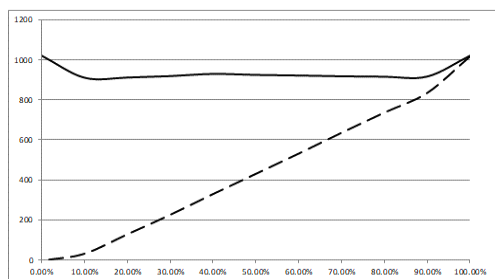


THD vs load (@230VAC 50Hz)



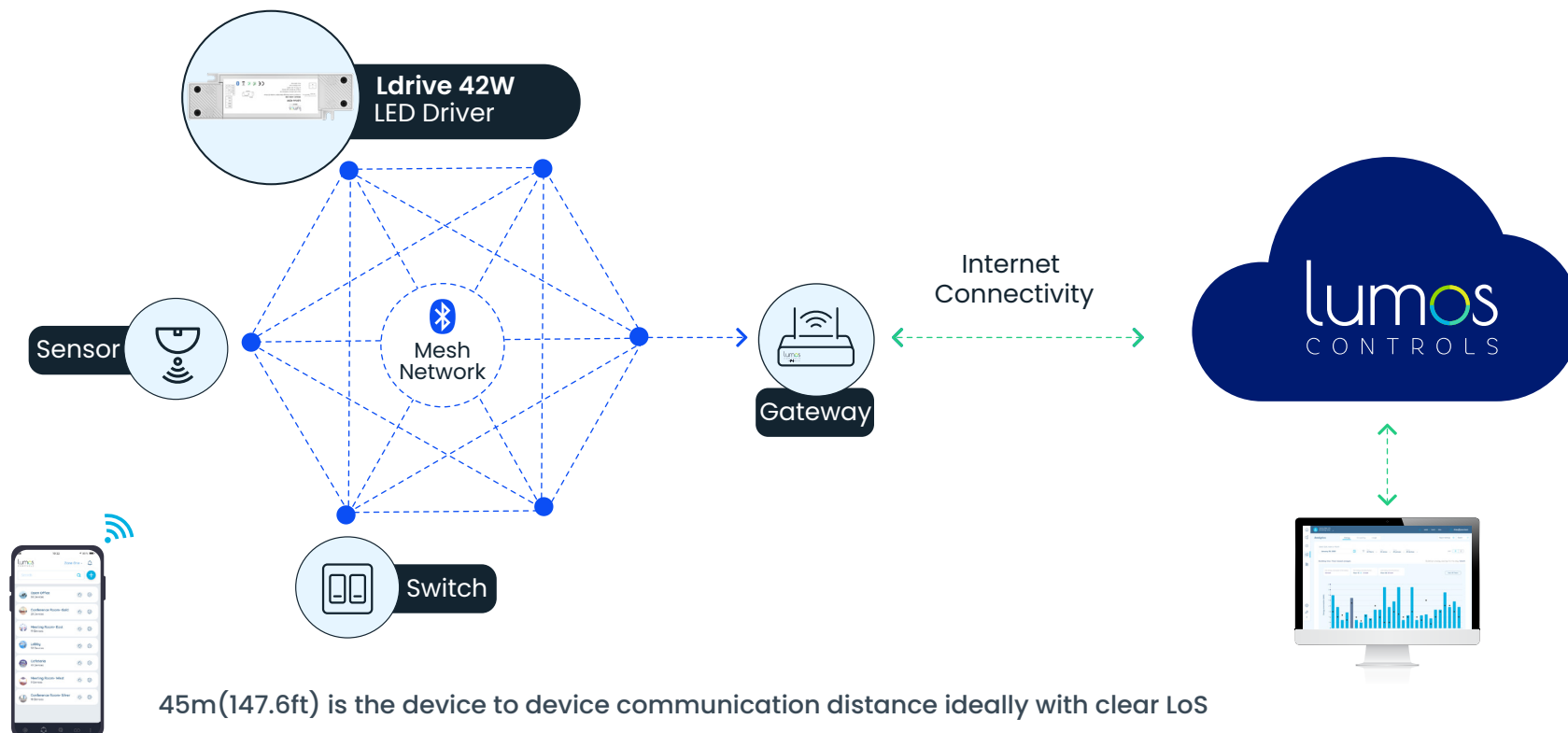
——— 800mA
 - · - · - 700mA
 · · · · · 600mA
 - - - - - 450mA

Dimming characteristics



——— Tunable White
 - - - - - Dimmable

Smart Ecosystem



Certifications	Details
CE	<p>EMC test standards ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) EN 55032: 2015/A11: 2020 EN 55035: 2017+A11: 2020</p> <p>Safety test standard EN 61347-2-13:2014+A1:2017 EN 61347-1:2015+A1:2021 EN IEC 60598-1:2021 EN 62493:2016</p> <p>Radio test standard ETSI EN 300 328 V2.2.2 (2019-07)</p> <p>Health test standard: EN 62479: 2010 EN 50663: 2017</p>
RoHS 2.0	RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU
REACH	Regulation (EC) No 1907/2006 of REACH
WEEE	Under the WEEE Directive: 2012/19/EU
Bluetooth	D039950

Items included in the package box

- Ldrive 42W
- User manual
- Screws
- Strain relief

Ordering Information

Product Code	Product Name	Product Description	Communication	Voltage Rating	Output Power	Output Channel
WDA2C-42W-IDB	Ldrive 42W	Constant current wattage selectable Tunable LED Driver 42W	BLE4.2	220-240VAC	42W	2 Channels

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