Tunable White LED Driver

LOYBT-DRV-0400-TW / LOYBT-DRV-0600-TW / LOYBT-DRV-0900-TW

Datasheet #89102101



The LOYBT-DRV-0400-TW, LOYBT-DRV-0600-TW, and LOYBT-DRV-0900-TW are compact, high-performance constant current LED drivers designed for tunable white indoor LED lighting systems requiring precision, efficiency, and advanced control. Housed in a plastic insulated casing with IP20 protection, it features a design with end caps for streamlined installation, which serve as strain relief and esnure protection Class II. The driver supports NFC programming, allowing for easy adjustment of output current in 1mA steps before delivery.

The output of the LED driver is SELV and features integrated Bluetooth Mesh and DALI (DT8-Tc) interfaces, enabling seamless integration into smart lighting networks.

It delivers flicker-free dimming down to 0.1%, with full-range brightness and CCT control, and operates within an output voltage range of 30-39 V DC. Designed for Class II fixtures, it ensures low standby power consumption (<0.3W) and complies with the EU's ErP Directive for networked standby (<0.5W).

Built-in protections include overheat, overvoltage, overload, and short circuit safeguards, with automatic recovery. Backed by a 5-year warranty for 50,000 operating hours, it offers a reliable and efficient solution for professional lighting environments.

Features

- IP20 protection class
- End caps for strain relief
- Adjustable output current in 1mA steps via NFC
- Safety Extra Low Voltage output (SELV)
- Bluetooth Mesh interface
- Flicker-free dimming
- Compact type for integration in Class II luminaires or remote ceiling
- DALI interface (DT8-Tc)
- Output voltage range 30-39 V DC
- Complying with the EU's ErP Directive
- Dimming range 0.1-100%
- Correlated Color Temperature (CCT) control
- For use in indoor LED lighting systems
- Overheat, overvoltage, overload, short circuit protection and automatic recovery
- 5-year warranty for 50,000 operating hours

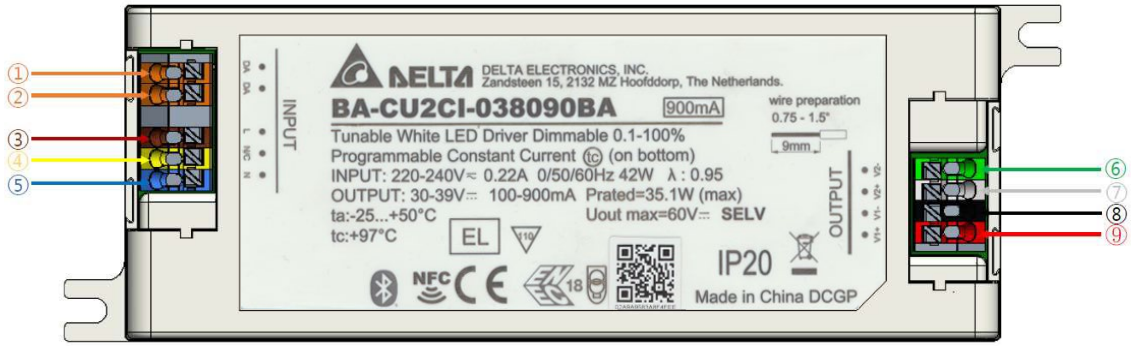
Specifications

Type	LOYBT-DRV-0400-TW	LOYBT-DRV-0600-TW	LOYBT-DRV-0900-TW
Dimensions (mm)	195x55x31 (LxWxH), DIM009		
Installation	Built-in installation		
Purpose of control	Tunable white LED driver		
Construction of control	Independently mounted control		
Feature of automatic action	Type 1		
Rated input voltage range	220-240 V AC		
Overvoltage category	II		
Output current [1]	400mA	600mA	900mA
Nominal power (max)	15.6 W	23.4 W	35.1 W
Inrush current	< 10 A		
Output voltage range	30-39 V DC		
Operating conditions	-25°C to +50°C, 10-90 % RH, noncondensing, degree of protection: IP20		
Storage conditions	-25°C to +85°C		
Interfaces	Bluetooth Mesh DALI, overvoltage protected (mains)		
DALI protocol conformance (IEC 62386 parts)	101 ed2, 102 ed2, 207 ed1, 209		
Bluetooth RF characteristics	Maximum output power: +8 dBm Frequency range: 2402-2480 Mhz		
Terminal blocks	Push-In terminals		
Connection wires profile	0.75-1.5 mm^2 [AWG 24-16]		
Maximum cable length	30 cm (between driver and LED module)		

[1] Programmable from 100-900 mA, additional current options on request

LOYBT-DRV-0400-TW / LOYBT-DRV-0600-TW / LOYBT-DRV-0900-TW

Wiring Specifications



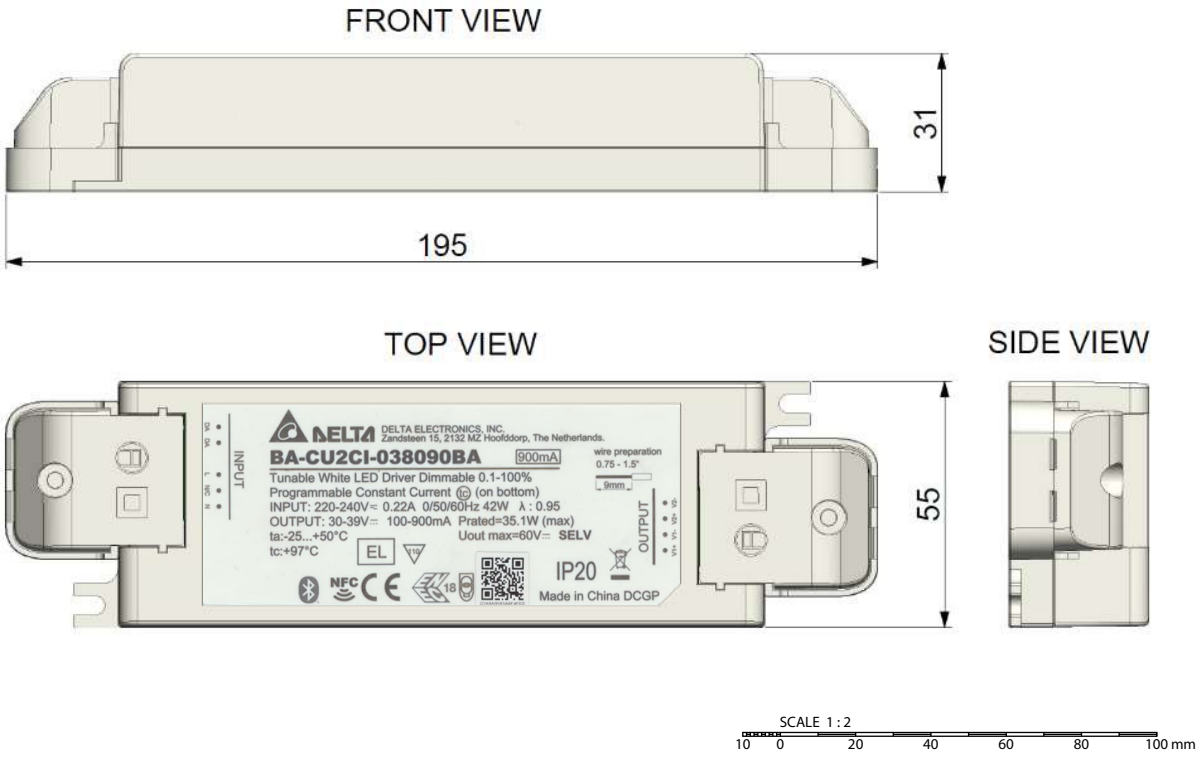
Input / Output Push-in Clamp Connector							
No	Name	Function	Connector Color	Wire Color	Wire Diameter	Strip Length	Condition
1	DA	Control	Orange	N/A	0.75 – 1.5 mm² [24–16 AWG]	9 mm	DALI Input
2	DA	Control	Orange	N/A	0.75 – 1.5 mm² [24–16 AWG]	9 mm	DALI Input
3	Line	Input	Brown	N/A	0.75 – 1.5 mm² [24–16 AWG]	9 mm	AC Input
4	N/C	-	Yellow	N/A	0.75 – 1.5 mm² [24–16 AWG]	9 mm	-
5	Neutral	Input	Blue	N/A	0.75 – 1.5 mm² [24–16 AWG]	9 mm	AC Input
6	V2-	LED Output	Green	Green	0.75 – 1.5 mm² [24–16 AWG]	9 mm	Cold White
7	V2+	LED Output	White	White	0.75 – 1.5 mm² [24–16 AWG]	9 mm	Cold White
8	V1-	LED Output	Black	Black	0.75 – 1.5 mm² [24–16 AWG]	9 mm	Warm White
9	V1+	LED Output	Red	Red	0.75 – 1.5 mm² [24–16 AWG]	9 mm	Warm White

Order number	Product description
LOYBT-DRV-0400-TW	LOYBT-DRV-0400-TW, Spare Part Driver 400mA for LOYDL Series
LOYBT-DRV-0600-TW	LOYBT-DRV-0600-TW, Spare Part Driver 600mA for LOYDL Series
LOYBT-DRV-0900-TW	LOYBT-DRV-0900-TW, Spare Part Driver 900mA for LOYSP Series

Dimensions of the devices in mm and [inch]

DIM009

LOYBT-DRV-0400-TW
LOYBT-DRV-0600-TW
LOYBT-DRV-0900-TW



Products of Delta Intelligent Building Technologies (Europe) GmbH are subject to ongoing development, and technical specifications may change without notice. The most recent datasheet can be downloaded from www.loytec.com.