

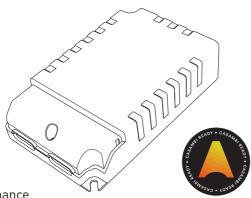
CASAMBI

Programmable Constant Current LED Driver

HD30/50 HDC30/50 Series

Feature

- Output current set from App
- 100% non-flicker DC dimming
- Current trim fine tuning
- Gradient speed adjustable
- Very low standby power
- Single color / CCT compatible
- Wide range LED type adaption
- Premium low brightness performance



Introduction

There are 30/50W single color / CCT constant current LED driver models in the HD/HDC driver series. They are Casambi ready and all features are fully software configurable with the advanced features of Casambi platform.

The output channel, rated current, gradient speed and trim level features are all adjustable from the Casambi app. These features allow customer to apply in various application with multiple options.

The advanced full DC dimming scheme is implemented, and it's 100% physically flicker free in whole dimming range. It also has very good low brightness performance, to build elegant low brightness environment and on/off dimming experience.

Models

Model	HDC50CB	HDC30CB	HD50CB	HD30CB
Function	CCT / Single	CCT / Single	Single Color	Single Color
Rated Max Power	50W	30W	50W	30W

HDC50/HD50 output spec. vs rated current:

Rated current	200mA	350mA	500mA	700mA	1050mA	1400mA
Max output Volt.	50V	50V	50V	50V	47.5V	35.5V
Max output power	10W	17.5W	25W	35W	50W	50W

HDC30/HD30 output spec. vs rated current:

Rated current	200mA	350mA	500mA	700mA	1050mA	1400mA
Max output Volt.	50V	50V	50V	43V	29V	22V
Max output power	10W	17.5W	25W	30W	30W	30W

Setting output current and channel

The working mode and output current is adjustable from Casambi App and the CCT model can also be set to single color mode. The rated current range is from 200mA to 1400mA with 6 options, and the factory default value is 350mA.

To set the current and working mode, please keep the driver unpaired and powered on. From the Casambi app, click on the driver icon and select 'Change profile' option on the pop up manual (Fig.1). The rated current and working mode can be selected in the list (Fig.2). Once the CCT model be configured as single color mode, the warm white channel will have no function and the cool white channel will be the active output.



Fig.1



Fig.2

Automatic LED adaption

The driver verifies the load character on each power on. It will run a load adaption process once the change of load is detected. During the adaption process, the lighting fixture will dim up and down for about 10 seconds. After this process, the driver will match the LED feature and maintain a 0-100% full range physical non-flickering DC dimming. Normally this adaption process happens on the power on moment once the lighting fixture is changed with the brightness of higher than 30%.

For CCT application, the voltage and current feature for each LED channel must be same for proper adaption and working. If two channel's voltage and current dose not match, the adaption will fail and the driver will only work in single color mode with limited function.

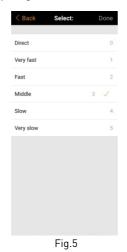
CAUTION: The adaption process CAN NOT detect the value of LED rated current, so the rated current MUST be set correctly before connecting the driver to lighting fixture. Otherwise the lighting fixture can be permanently damaged.

Advanced feature - Current trimming

To fine tune the LED driving current, please pair the driver first and double click on the driver icon to open the setting page. On the setting page please click on the 'Current trim' item in the PARAMETERS section (Fig.3). The output current can be trimmed from 100% to 50% of the rated current at 5% step (Fig.4).







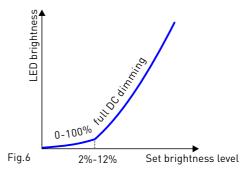
Advanced feature - Gradient speed adjust

The on/off gradient speed can be adjusted on the setting page. Please pair the driver first and double click on the driver icon to open the setting page. On the setting page please click on the 'Gradient speed' item in the PARAMETERS section (Fig.3). The gradient speed can be adjusted in 6 levels from direct to very slow(Fig.5).

Advanced feature - Working at low brightness

To extend the application at low brightness, the output brightness is designed to rather lower at low brightness levels. The output brightness will be nonlinear to the relevant brightness level below a certain point. This point will be around 2% to 12%, related to rated current and trim value (Fig.6).

The driver will maintain linear DC driving mode at low brightness, no need to concern about PWM modulation issues.



Specification

Model	HDC50CB	HDC30CB	HD50CB	HD30CB		
Function	CCT / Single	CCT / Single	Single Color	Single Color		
Rated max power	50W	30W	50W	30W		
Input power		200-240V a	ac 50/60Hz			
Max input current	0.28A	0.28A 0.17A 0.28A 0.				
Max power factor		0.9	94			
Typical Efficiency	87.5%					
Output voltage	0-50V DC					
Rated output current (mA)	200, 350, 500, 700, 1050, 1400					
Output current trim	100% to 50% with 5% step					
Dimming method	Full range linear DC					
Standby power consumption	<0.5W					
Working temperature	-20~50°C					
Case temperature	Max 90°C					
Dimension	130x67x30mm					
Gross weight		170 g	rams			



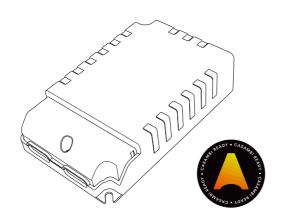
CASAMBI

可编程恒流调光驱动

HD30/50 HDC30/50系列

■ 特点

- 可通过App设置电流
- 纯直流调光
- 输出电流可微调
- 渐变速度可调
- 超低待机功耗
- 兼容单色/冷暖白应用
- 可适配各类LED灯具
- 极佳的低亮度特性



■ 简介

HD/HDC系列调光驱动功率有30W和50W以及单色和冷暖白的多种机型。本机的各类配置功能都可以通过Casambi App进行设置。

通过Casambi App可以调节本机的输出电流、通道类型、渐变速度和电流微调的各类参数。这些特性为LED灯具的配置和应用方式提供了多种选项。

该系列电源采用先进的全范围DC恒流调光方案,在整个调光范围内可实现完全的物理无闪烁。它还具有非常好的低亮度性能,可以营造非常优雅的低亮度环境和开关灯时的渐变体验。

■ 型号列表

型号	HDC50CB	HDC30CB	HD50CB	HD30CB
功能	单色/冷暖白	单色/冷暖白	单色	单色
最大额定功率	50W	30W	50W	30W

HDC50/HD50输出特性:

额定电流	200mA	350mA	500mA	700mA	1050mA	1400mA
最大输出电压	50V	50V	50V	50V	47.5V	35.5V
最大输出功率	10W	17.5W	25W	35W	50W	50W

HDC30/HD30 输出特性:

额定电流	200mA	350mA	500mA	700mA	1050mA	1400mA
最大输出电压	50V	50V	50V	43V	29V	22V
最大输出功率	10W	17.5W	25W	30W	30W	30W

■ 设置输出电流和通道

本机的输出通道和输出电流可通过Casambi App进行调整,而且冷暖白的机型也也可设置为单色模式。额定电流的调节范围为200mA至1400mA,共有6种选择,出厂默认值为350mA。

要设置电流和工作模式,请保持驱动处于通电状态且未配置工程。在 Casambi App中,单击驱动图标并在弹出的菜单中选择"更改配置文件"选项 (图1)。额定电流和工作模式可以在列表中选择(图2)。当CCT机型配置为单色 模式时,暖白通道将无输出功能。



Fig.1



Fig.2

■ LED灯具的自动适配

本机在每次通电时都会检验LED灯具的特性,当检测到灯具参数变化时, 本机会自动进行灯具适配以达到最佳的调光效果。在适配过程中,灯具会明暗 闪烁约10秒。适配完成后,驱动电源将完全匹配灯具,并实现0-100%恒流DC调 光。

对于冷暖白灯具,必须确保两路LED的电压和电流特性相同,否则灯具自 动适配将失败并仅能工作在单色模式。

注意! 本机并不能判断LED芯片的额定电流值, 所以必须先设定好输出电 流值再灯具灯具,否则可能会造成灯具的永久损坏。

高级功能 - 电流微调

要微调输出电流,请先在app上添加本机,然后双击驱动图标打开设置页 面。在设置页面上,请点击"参数"部分中的"Current trim"项(图3)。输出电流 可以按5%的步长,从额定电流的100%到50%进行微调(图4)。



< Back	Select:	Done
Original, 100%		0 🗸
95%		1
90%		2
85%		3
80%		4
75%		5
70%		6
65%		7
60%		8
55%		9
50%		10

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Fig.3

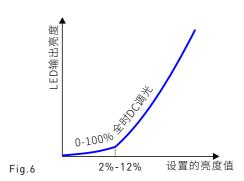
Fig.5

高级功能-渐变速度调整

要调节灯光渐变的速度,请先在app上添加本机,然后双击驱动图标打 开设置页面。在设置页面,请点击参数部分中的"Fading speed"项(图3)。渐 变速度可以从直接到非常慢的6个级别进行调整(图5)。

高级功能-低亮度照明

为了实现更好的低亮度照明性能,本机在亮度设定较低时可以实现比实 际光通量更低的照度,从而扩展低照度的应用,并使得渐变的过程更顺滑。在 设定亮度低于某一特定值时, 灯具的实际亮度会比设定的值更低。根据灯具 的额定电流电流微调值,这个点在亮度值在2%到12%之间(图6)。



规格

型号	HDC50CB	HDC30CB	HD50CB	HD30CB		
功能	单色/冷暖白	单色/冷暖白	单色	单色		
额定最大功率	50W	30W	50W	30W		
输入电源		200-240V交流				
最大输入电流	0.28A	0.17A	0.28A	0.17A		
最大功率因数		0.9	94			
典型效率	87.5%					
输出电压	0-50V直流					
额定输出电流(mA)	200,350,500,700,1050,1400					
输出电流微调	100%到50%,步长5%					
调光方式	全时恒流DC线性调光					
待机功耗	<0.5W					
工作环境温度	-20~50°C					
外壳最高允许温度	90°C					
尺寸	130x67x30mm					
重量		170	 D克			