Rayrun

Smart PLC Master-Slave

Master LED Driver

PD200CB (-S)/ PD400CB-S

Features

- Digital PLC communication
- Flexible master-slave configuration
- Slave driver feature programmable
- Slave driver groupable
- High power, small size
- Waterproof option

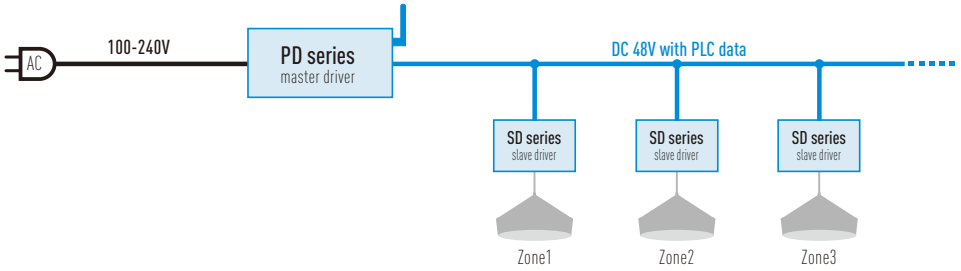
CASAMBI

Introduction

PD200CB / PD400CB is master driver to work with the compatible slave drivers for LED lighting application. The master driver is AC powered, it can receive Casambi command and output DC 48V power with digital power line communication (PLC) commands to drive and control slave drivers. The slave driver can drive LED lights with the 48V power and PLC commands from this model.

Besides dimming and color adjusting, the LED rated current, fade time, current trim level, dimming curve and group features are adjustable from the Casambi app. The master driver will transfer these commands to slave drivers via the power cable.

Wiring Diagram



Installation

1. Select proper slave driver model and amount, make sure the total power of slave drivers are below the master's rated power.
2. Make sure the slave driver's output current match the LED lights and then connect the slave drivers' output to LED lights.
3. Connect the master driver's output cable to all slave drivers' power input.
4. Connect the power input of master driver to AC power.

CAUTION:

Do not connect the DC output power cable to AC power!

Only use with compatible slave drivers!

Change model profile

This master driver can be configured as single color, CCT or single color/CCT with zone model. To change the model profile, please make sure current item is unpaired and powered on. On the Casambi app, click on the product icon and select 'Change profile' option on the pop up menu (Fig.1). The model can be changed in the list (Fig.2).

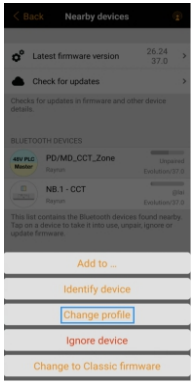


Fig.1

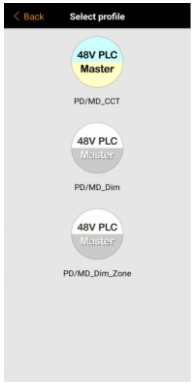


Fig.2

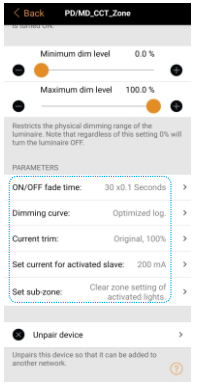


Fig.3

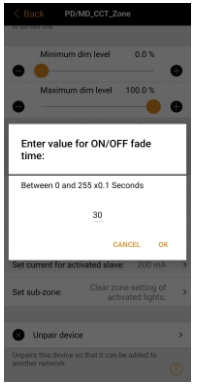


Fig.4

ON/OFF fade time adjust

The on/off fade time of slave driver can be adjusted on the setting page. Please open the setting page of the master driver on the app, find the 'ON/OFF fade time' in PARAMETERS section, and tap this item (Fig.3). The fade time can be adjusted in range of 0-25.5 seconds. Please enter value in range of 0-255 with the step of 0.1 seconds (Fig.4).

For example, enter '25' to set the fade time to 2.5 seconds.

Change output current of slave driver

The output current of slave driver connected to this model can be changed in range of 100mA-1400mA from the app. User can setup the activated slave driver's current by type in value. The activated slave driver will accept the current value in it's rated range.

To change the slave driver's output current, please operate with following steps:

1. Open the setting page of the master driver on the app, find the 'Set current for activated slave' in PARAMETERS section, and tap this item (Fig.3).

2. Type in the desired current value for the slave driver in the dialog box (Fig.5).

3. Connect power of the target slave driver to this master driver, and tap OK within 10 seconds. If the slave driver was already powered on, please cut it's power and power on again to activate it.

After this operation, the current value will be set to the slave driver. Please be noted, only activated slave driver will accept the valid current value within it's rated current range.

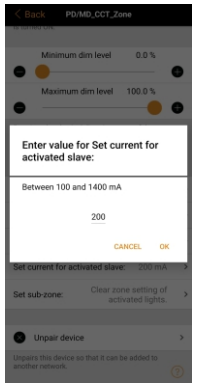


Fig.5

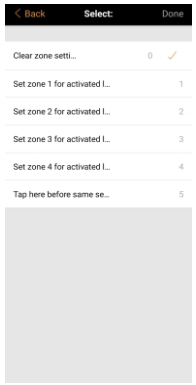


Fig.6

Fig.7

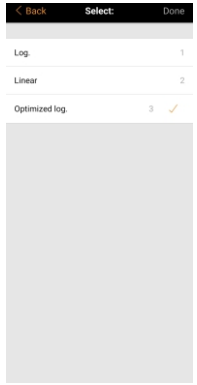


Fig.8

Program the slave driver zone

With zone supported profile of this model, the connected slave drivers can be programmed to 4 zones, and user can adjust the brightness of each zone individually. To program the slave driver's zone, please operate with following steps:

1. Open the setting page of the master driver on the app, find the 'Set sub-zone' in PARAMETERS section, and tap this item (Fig.3).

2. Connect power of the slave driver to this master driver. If the slave driver was already powered on, please cut it's power and power on again to activate it.

3. Select the desired zone setting of the target slave driver and tap 'Done' from the menu(Fig.6). If slave drivers need to be programmed with same zone feature, please select item 5 'Tap here before same setting' before making the same setting.

Output current trimming

To fine tune the slave driver's LED driving current, please open the setting page of the master driver on the app, find the 'Current trim' in PARAMETERS section, and tap this item (Fig.3). The output current can be trimmed from 100% to 50% of the rated current at 5% step (Fig.7).

The current trim setting is a global parameter, it will effect on all connected slave drivers once operated.

Change dimming curve

The dimming curve defines the trend of light output strength versus brightness level (0-100%) showing on the app. To change the slave driver's dimming curve, please open the setting page of the master driver on the app, find the 'Dimming curve' in PARAMETERS section, and tap this item (Fig.3), the dimming curve can be changed from Logarithm, Linear and Optimized logarithm (Fig.8).

The Linear curve will result even light output power versus the brightness level set on app, but for human eye sensing, the light output change is relative too small at high brightness level.

The Logarithm curve will result strong brightness change at high brightness level and this will make the brightness adjustment is more visible and logical for human eye.

The Optimized logarithm curve is between linear and logarithm, results an balanced brightness adjustment effect.

Specification

Model	PD200CB(-S)	PD400CB-S
Rated max power	200W	400W
Input power	AC 100-240V	
Output voltage	DC 48V with PLC data	
Power factor	>0.98@110V, >0.94@220V	
Efficiency	>93%@full load	
LED driving current setting	100-1400mA with 1mA step	
Fade time setting	0-25.5 seconds with 0.1 second step	
Output current trim setting	100% to 50% with 5% step	
Dimming curve setting	Linear, Logarithm, Optimized logarithm	
Working temperature	-20~50°C	
Water proof	IP63 standard, IP67 for -S version	IP67
Dimension	61.5x138x39mm	90x163x44mm