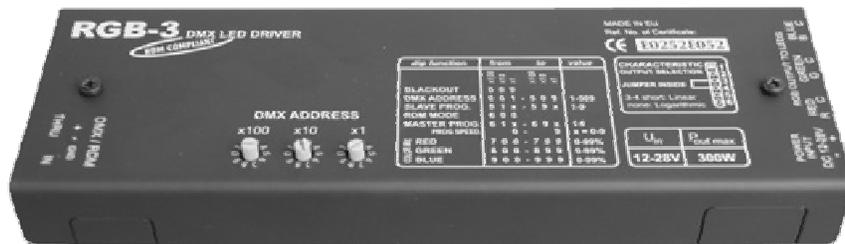# DEZELECTRIC

RGB-3 DMX LED DRIVER

(RDM compliant)

3 channels 12-24V 300W led driver
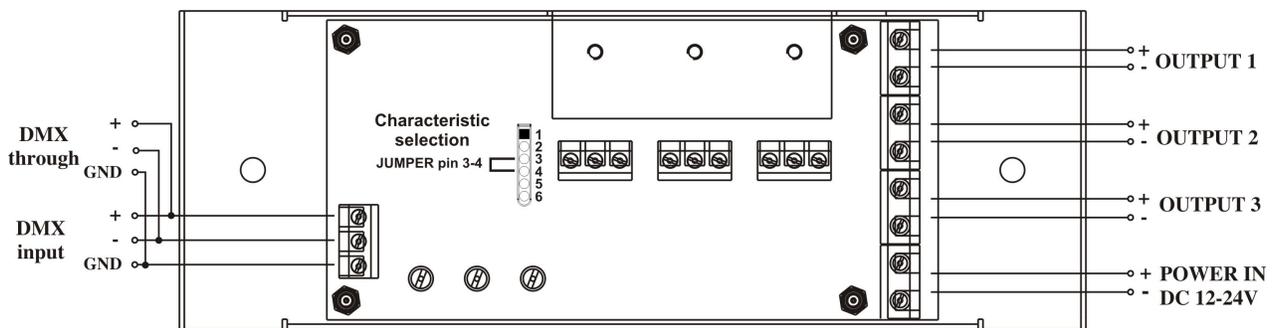
User's manual

Introduction

The RGB-3 DMX LED DRIVER is a control module for driving LED modules. The product allows colour mixing by independently controlling lighting solutions with led's till 300W on 12-24V power range. It is small and has compact design, easy to assembly and fixes it. Led modules are controlled by PWM (pulse with modulation) in high frequency. This high frequency guarantees flicker-free lighting comfort, and allows realising a linear dimming characteristic with fast reaction time.

This product is RDM compliant, and uses all advantages of RDM norm.
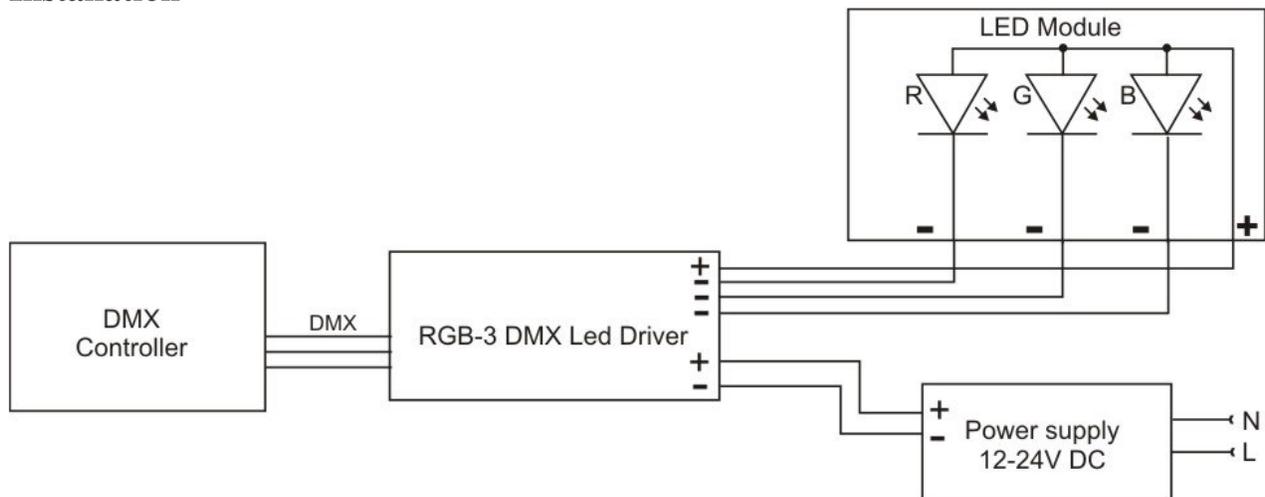
Connections

Before using must be open the housing by screwing off the two screw on the top side of metal house. After then the top of house can be taken up. Cable connection for working can be easy made through terminals.

Inside viewing and terminal connections:

- DMX Input: for receiving normal DMX-512 signal
- POWER INPUT: DC12-24V, max. 300W
- OUTPUT: for led modules three colour channel, or one colour led's three independent controls. **Common anode control solution, so common + for each output!**
- DECIMAL CODESWITCH: DMX address setting or static colours and demo program selection.
- Characteristic selection jumper: Load driving characteristic can be select: normal or logarithm.

Installation

Setup

On the front side of the product you can find the decimal code switches which you can select working modes. Each of switches has 10 positions, numbered from 0 to 9. Lies them from left to right you can get a three digit number. With different number you can use different modes.

000
BLACK-OUT function, channels values are 0, outputs not lit.

001 – 509
DMX Address. The device receive DMX signal and from selected address will save three channel values and will be send to outputs. Address 510 and 511 are not dedicated.

5 P T – 5 P T
SINGLE mode, STAND ALONE programs can be run with selectable speed.

P : 1-9, 9 different stand alone programs, they can be edited with help of PC-DMX/RDM Interface software.
T: 0-9, 10 different program speed

600
RDM mode
All parameters can be set by PC-DMX/RDM Interface

6 P T – 6 P T
MASTER mode. Similar like SINGLE mode but the master sends also DMX signal and can control other 19 led driver.

700 – 799
STATIC RED light between 0-99%. With the first code switch in 8 and 9 positions possible to mix any kind of colour.

800 – 899
STATIC GREEN light between 0-99%. With the first code switch in 7 and 9 positions possible to mix any kind of colour.

900 – 999
STATIC BLUE light between 0-99%. With the first code switch in 7 and 8 positions possible to mix any kind of colour.

ATTENCION! If you are using colour mixing by 7xx, 8xx and 9xx codes, and change channel, then the selected percent value will be not legal on the output. To get the real value must change the percent value. This solution make possible manual colour mixing with three switches, otherwise after channel changing would be immediately set itself to selected percent value to overwrite the earlier adjusted channel values!
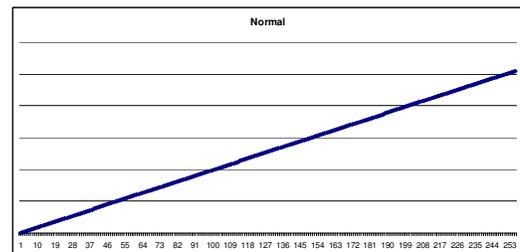
Output characteristic

The device can drive LED modules with two different characteristic. The selection between the two characteristic is possible via jumper which can be found inside the device on the PCB.
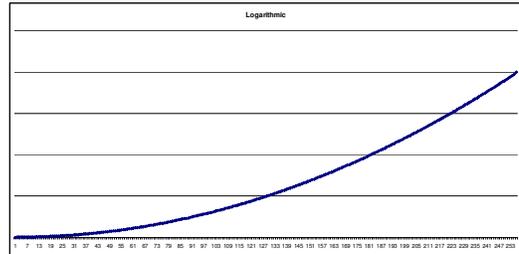

Normal: Make pin 3 and 4 short, and now normal characteristic is selected. If the DMX value changing linear from min to max then the output power is also changing linear. This is the simply way to drive LED modules, most of drivers working similar. With this solution the output power is linear but the light intensity not. This is a property of LED-s

JUMPER -

1
2
3
4
5
6

Editable: Without using jumper the second characteristic will be activated. If the DMX value changing linear from min to max then the output light intensity is also changing linear. This is a comfortable solution for human eyes.

Logarithmic

Suggested to use logarithm characteristic for better and easier controlling. The normal selection can be used if already has other LED modules used which has only normal characteristic and must be all LED device to working similar.

The output characteristic can be modified by channel with help of PC-DMX/RDM Interface software.

WARNING! To make a short between pin 4 and 5 the device can go to the dogs! Never make contact with jumer between pin 4 and 5!

Technical specifications

Input

- AC 12-24V max. 300W
- DMX-512, decimal code switch addressing

Output

- Led driving PWM, 3 channels, common anode or common anode or chatode controlling
- Dimming: 0-100% on all channels
- Output power: max. 300W, 100W/channel

Weight and measurements

- Width: 200mm; Wide: 66mm; Deep: 25mm
- Weight 0,3kg