

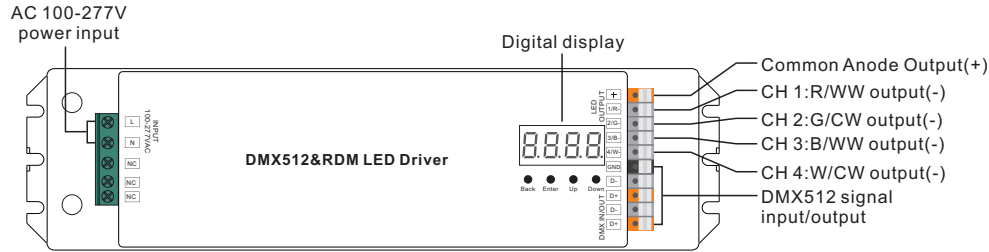
75W DMX512 & RDM LED Driver(constant voltage)

09.75RD.04763



Important: Read All Instructions Prior to Installation

Function introduction



Product Data

| | | |
|---------|---------------------------|---|
| Output | LED Channel | 4 |
| | DC Voltage | 24V DC |
| | Max. Current | Max. 3.12A/ch, ch1+ch2+ch3+ch4=3.12A |
| | Voltage Tolerance | ±1% |
| | Rated Power | max. 75W |
| Input | Voltage Range | 100-277V AC |
| | Frequency Range | 50/60Hz |
| | Power Factor (Typ.) | > 0.99 @ 100VAC, > 0.96 @ 230VAC |
| | Total Harmonic Distortion | THD ≤ 15% (@ full load / 230VAC) |
| | Efficiency (Typ.) | 86% @ 230VAC full load |
| | AC Current (Typ.) | 0.9A @ 100VAC, 0.39A @ 230VAC, 0.33A@277VAC |
| | Inrush Current (Typ.) | COLD START Max. 2A at 230VAC |
| | Leakage Current | < 0.5mA /230VAC |
| Control | Standby Power Consumption | < 0.5W |
| | Dimming Interface | DMX/RDM |
| | Dimming Range | 0%-100% |
| | Dimming Method | Pulse Width Modulation |
| | Dimming Curve | Logarithmic, Linear |

| | | |
|--------------|--------------------------|--|
| Protection | Over Current | Yes, recovers automatically after fault condition is removed |
| | Over Temperature | Yes, recovers automatically after fault condition is removed |
| Environment | Working Temp. | -25°C ~ +45°C |
| | Max. Case Temp. | 80°C |
| | Working Humidity | 10% ~ 95% RH non-condensing |
| | Storage Temp. & Humidity | -40°C ~ +80°C, 10% ~ 95% RH |
| Safety & EMC | Safety Standards | UL8750, CAN/CSA C22.2 No. 250.13-14, ENEC EN61347-1, EN61347-2-13 approved |
| | Withstand Voltage | I/P-O/P: 3.75KVAC |
| | Isolation Resistance | I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH |
| | EMC Emission | EN55015, EN61000-3-2, EN61000-3-3 |
| | EMC Immunity | EN61547, EN61000-4-2,3,4,5,6,8,11, surge immunity Line-Line 1KV |
| Others | MTBF | 193.6K hrs min. @ 230VAC full load and 25°C ambient temperature |
| | Dimension | 244*64*32mm (L*W*H) |

- Built-in DMX512 interface, support RDM bi-directional communication
- 100-277VAC wide input voltage
- 4 DMX512 Addresses, 4 Channels Output . DMX channel quantity from 1CH~4CH settable
- To control single color, dual color, RGB/RGBW LED lighting
- PWM output resolution ratio 8bit , 16bit settable.
- Output PWM frequency from 500HZ ~ 30K HZ settable.
- Output dimming curve gamma value from 0.1 ~ 9.9 settable.
- Compatible with universal DMX512 consoles
- Class II power supply, full isolated plastic case
- High power factor and efficiency
- Galvanic isolation
- IP20 rating, suitable for indoor LED lighting applications

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Operation

Button introduction

Up, Down button is for menu selection. After power on the decoder, if keep on clicking **Up** button, you will find below menu on display:

DMX signal indicator ● : When DMX signal input is detected, the indicator on the display following after **A** turns on red **A.XXX**.



● ● ● ●
Back Enter Up Down

- A.XXX** Means DMX address. factory defaults setting is 001.
- AHXX** Means DMX channels quantity.
- ABXX** Means Bit (8bit or 16bit). factory defaults setting is 16bit
- AFXX** Means output PWM frequency. factory defaults setting is 1K HZ
- GAXX** Means output dimming curve gamma value, factory defaults setting is ga 1.5
- APXX** Means Decoding mode, factory defaults setting is dp1.1

By holding button Back + Enter together at the same time over 5 seconds until the display go off, it will restore default settings.

1. DMX address setting:

select menu **A.XXX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to set DMX address (click is slow, hold is fast.), then click button "Back" to confirm.

2. DMX channel quantity setting:

Select menu **AHXX**, click button "Enter", display flashes, then click button "Up" / "Down" to set DMX channel quantity, then click button "Back" to confirm.

For example the DMX address is already set 001.
CH01=1 DMX address for all the output channels, which are all address 001.
CH02=2 DMX addresses, output 1&3 is address 001, output 2,4 is address 002
CH03=3 DMX addresses, output 1, 2 is address 001,002, output 3,4 is address 003
CH04=4 DMX addresses, output 1,2,3,4 is address 001,002,003,004

DMX address is 001, CH01

| DMX Console Slider number | dp1.1 | dp2.1 |
|---------------------------|------------------------|------------------------------|
| DMX channel | | |
| 1 | for all output dimming | for all output dimming |
| 2 | No use | for all output micro dimming |

DMX address is 001, CH02

| DMX Console Slider number | dp1.1 | dp2.1 | dp3.2 |
|---------------------------|------------------------|------------------------------|------------------------|
| DMX channel | | | |
| 1 | for output 1&3 dimming | for output 1&3 dimming | for output 1&3 dimming |
| 2 | for output 2,4 dimming | for output 1&3 micro dimming | for output 2,4 dimming |
| 3 | | for output 2,4 dimming | for all output dimming |
| 4 | | for output 2,4 micro dimming | |

DMX address is 001, CH04

| DMX Console Slider number | dp1.1 | dp2.1 | dp5.4 | dp6.4 |
|---------------------------|----------------------|----------------------------|-------------------------------|-------------------------------|
| DMX channel | | | | |
| 1 | for output 1 dimming | for output 1 dimming | for output 1 dimming | for output 1 dimming |
| 2 | for output 2 dimming | for output 1 micro dimming | for output 2 dimming | for output 2 dimming |
| 3 | for output 3 dimming | for output 2 dimming | for output 3 dimming | for output 3 dimming |
| 4 | for output 4 dimming | for output 2 micro dimming | for output 4 dimming | for output 4 dimming |
| 5 | | for output 3 dimming | for all output master dimming | for all output master dimming |
| 6 | | for output 3 micro dimming | | strobe effects |
| 7 | | for output 4 dimming | | |
| 8 | | for output 4 micro dimming | | |

3. PWM output resolution Bit setting:

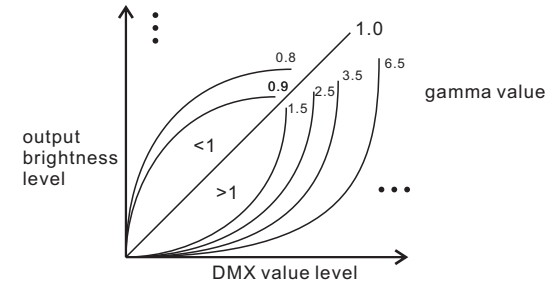
select menu **ABXX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button "Back" to confirm.

4. output PWM frequency setting:

select menu **AFXX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 00~30, then click button "Back" to confirm. 00=500HZ, 01=1kHz, 02=2kHz.....30=30kHz.

5. output dimming curve gamma value setting:

select menu **GAXX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose 0.1~9.9, then click button "Back" to confirm.



6. DMX decoding mode setting:

Select menu **APXX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose the decoding mode, then click button "Back" to confirm. "dPxx" means the DMX address quantity used for control of corresponding PWM output channel quantity. 1st "x" is DMX address quantity, 2nd "x" is PWM channel quantity.

Micro dimming: the micro dimming effect can only be visible when the dimming curve gamma value is set lower than 1.4, and the lower the value is, the more visible the micro dimming effect will be.

DMX address is 001, CH03

| DMX Console Slider number | dp1.1 | dp2.1 | dp4.3 | dp5.3 |
|---------------------------|------------------------|------------------------------|-------------------------------|-------------------------------|
| DMX channel | | | | |
| 1 | for output 1 dimming | for output 1 dimming | for output 1 dimming | for output 1 dimming |
| 2 | for output 2 dimming | for output 1 micro dimming | for output 2 dimming | for output 2 dimming |
| 3 | for output 3,4 dimming | for output 2 dimming | for output 3,4 dimming | for output 3,4 dimming |
| 4 | | for output 2 micro dimming | for all output master dimming | for all output master dimming |
| 5 | | for output 3,4 dimming | | strobe effects |
| 6 | | for output 3,4 micro dimming | | |

The supported RDM PIDs are as follows:

DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
DMX_START_ADDRESS
IDENTIFY_DEVICE
SOFTWARE_VERSION_LABEL
DMX_PERSONALITY
DMX_PERSONALITY_DESCRIPTION
SLOT_INFO
SLOT_DESCRIPTION
MANUFACTURER_LABEL
SUPPORTED_PARAMETERS

Restore to Factory Default Setting

Press and hold down both "Back" and "Enter" keys until the digital display turns off, then release the keys, system will reset and the digital display will turn on again, all settings will be restored to factory default.

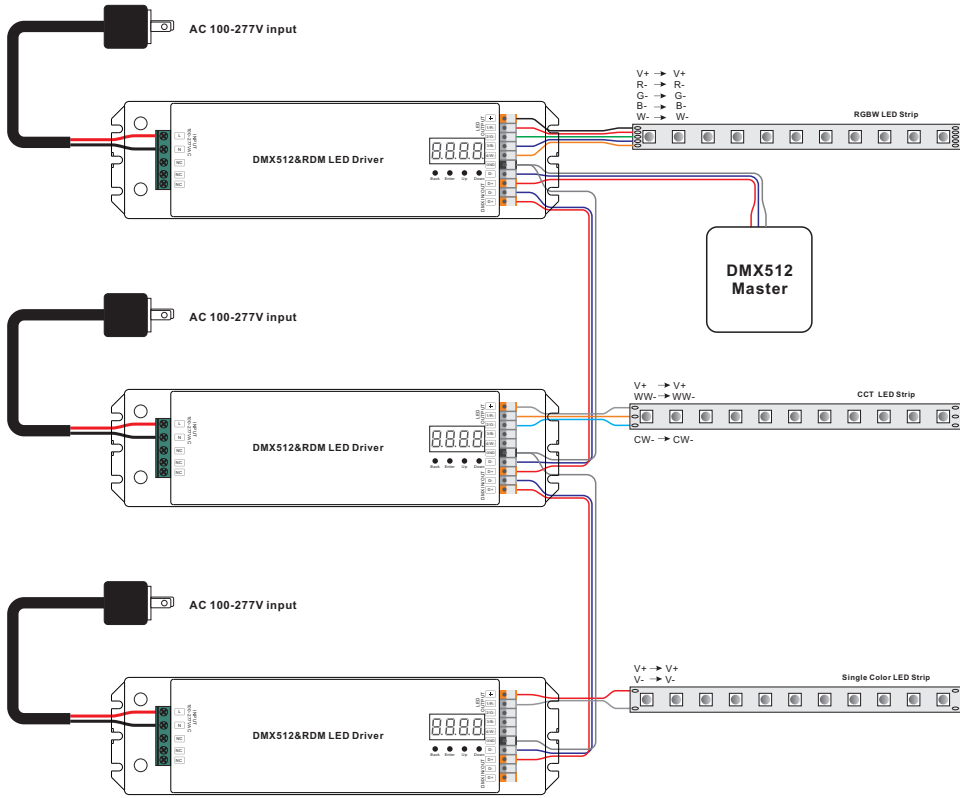
Default settings are as follows:

DMX Address Code: a001
DMX Address Quantity: SW1=0: ch04, SW1=1: ch03
PWM Resolution Mode: bt16
PWM Frequency: pf01
Gamma: ga1.5
Decoding Mode: dp1.1

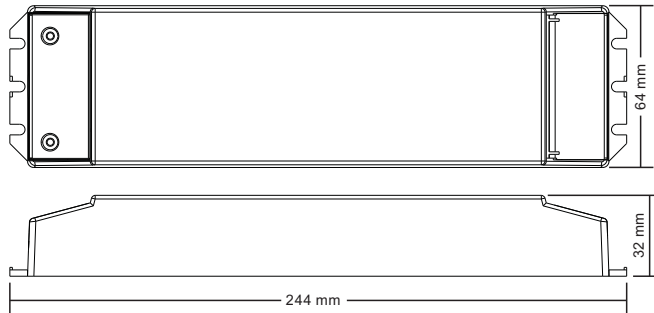
The data definitions for strobe channel are as follows:

{0, 7},//undefined
{8, 65},//slow strobe-->fast strobe
{66, 71},//undefined
{72, 127},//slow push fast close
{128, 133},//undefined
{134, 189},//slow close fast push
{190, 195},//undefined
{196, 250},//random strobe
{251, 255},//undefined

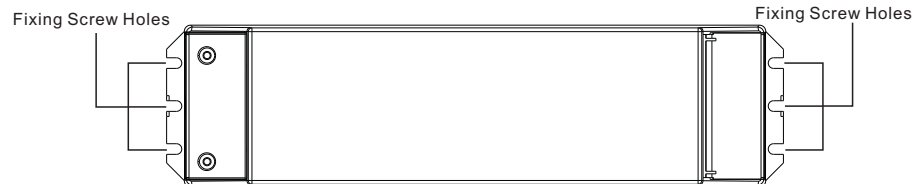
Wiring diagram



Product Dimension



Installation



Note: when mounting the driver, please choose any one of the three fixing screw holes to fix with a screw at each end.