75W DMX & RDM LED Driver(Constant Current)

70230040

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Important: Read All Instructions Prior to Installation

Function introduction

Digital display

Common Anode Output(+)
CH 1:R/WW output(-)
CH 2:G/CW output(-)
CH 3:B/WW output(-)
CH 4:W/CW output(-)

75W DMX512 Dimmable Driver

DMX512 signal input/output

AC 200-240V power input

Dips to set the operation current
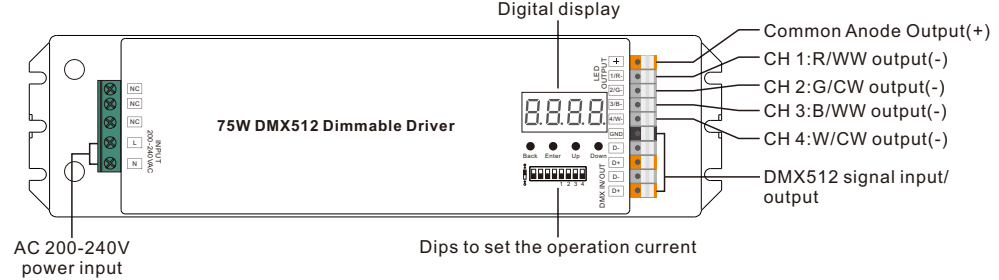
Product Data

Output	LED Channel	4							
	Selectable Current	300mA	350mA	400mA	450mA	500mA	600mA	700mA	800mA
	DC Voltage Range	8-43V	8-43V	8-43V	8-43V	8-43V	8-43V	8-43V	8-43V
	Selectable Current	900mA	1000mA	1100mA	1200mA	1300mA	1400mA	1500mA	
	DC Voltage Range	8-43V	8-43V	8-43V	8-43V	8-43V	8-43V	8-43V	
	Current Tolerance	±3%							
	Rated Power	Max. 64W/CH, CH1+CH2+CH3+CH4 ≤ 75W							
Input	Voltage Range	200-240V AC							
	Frequency Range	50/60Hz							
	Power Factor (Typ.)	> 0.9 @ 230VAC							
	Total Harmonic Distortion	THD ≤ 15% (@ full load / 230VAC)							
	Efficiency (Typ.)	87% @ 230VAC full load							
	AC Current (Typ.)	400mA @ 230VAC							
	Inrush Current (Typ.)	COLD START Max. 2A @ 230VAC							
Control	Dimming Interface	DMX/RDM							
	Dimming Range	0.1%-100%							
	Dimming Method	Pulse Width Modulation							
	Dimming Curve	Logarithmic, Linear							
Protection	Short Circuit	Yes, recovers automatically after fault condition is removed							

	Over Voltage	Yes, recovers automatically after fault condition is removed
	Over Temperature	Yes, recovers automatically after fault condition is removed
Environment	Working Temp.	-25℃ ~ +45℃
	Max. Case Temp.	80℃ (Ta = "45℃")
	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40℃ ~ +80℃, 10% ~ 95% RH
Safety & EMC	Safety Standards	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℃ / 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	190200H, MIL-HDBK-217F @ 230VAC at full load and 25℃ ambient temperature
	Dimension	244*64*32mm (L*W*H)

Dips to set the operation current

1 2 3 4

	1 2 3 4
300mA	●●●○
350mA	●●○●
400mA	●●○○
450mA	●○●●
500mA	●○●○
600mA	●○○●
700mA	●○○○

	1 2 3 4
800mA	○●●●
900mA	○●●○
1000mA	○●○●
1100mA	○●○○
1200mA	○○●●
1300mA	○○●○
1400mA	○○○●
1500mA	○○○○

• Dimmable LED driver, max. output power 75W total
• 4 channels constant current output, 300mA-1500mA output current optional
• Dips to set the operation current
• PWM output resolution ratio 8bit , 16bit settable.
• Output PWM frequency from 500HZ ~ 2K HZ settable.
• Output dimming curve gamma value from 0.1 ~ 9.9 settable.
• Class II power supply, full isolated plastic case
• High power factor and efficiency
• To control single color, dual color, RGB/RGBW LED lighting
• Built-in DMX512 interface, support RDM bi-directional communication
• Compatible with universal DMX512 master controllers
• IP20 rating, suitable for indoor LED lighting applications
• 5 years warranty

Safety & Warnings

• DO NOT install with power applied to device.
• DO NOT set the operation current with power applied
• 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 ·

A XXX   Means DMX address. fa ctory defaults setting is 001.

CH XX   Means DMX channels quantity.

bt XX   Means Bit (8bit or 16bit). factory defaults setting is 16bit

PF XX   Means output PWM frequency. factory defaults setting is 1K HZ

gA XX   Means output dimming curve gamma value, factory defaults setting is ga 1.5

dP XX   Means Decoding mode, factory defaults setting is dp1.1
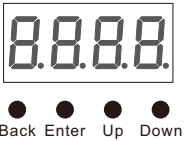
Back Enter Up Down

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 **CH** XX , 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 / DMX channel	dp1.1	dp2.1
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 / DMX channel	dp1.1	dp2.1	dp3.2
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 / DMX channel	dp1.1	dp2.1	dp5.4	dp6.4
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 **bt** XX , click button "Enter",display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button"Back" to confirm.
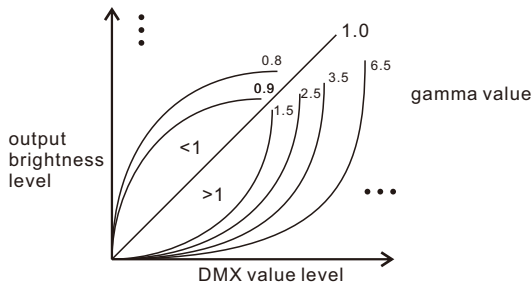
4. output PWM frequency setting:

select menu **PF** XX , 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.

Note: The max. PWM frequency this driver allows is 2kHZ, DO NOT set it higher than 2kHZ.

5. output dimming curve gamma value setting:

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

output brightness level — DMX value level

gamma value

1.0 0.8 0.9 1.5 2.5 3.5 6.5 <1 >1

6. DMX decoding mode setting:

Select menu **dP** XX , 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 / DMX channel	dp1.1	dp2.1	dp4.3	dp5.3
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
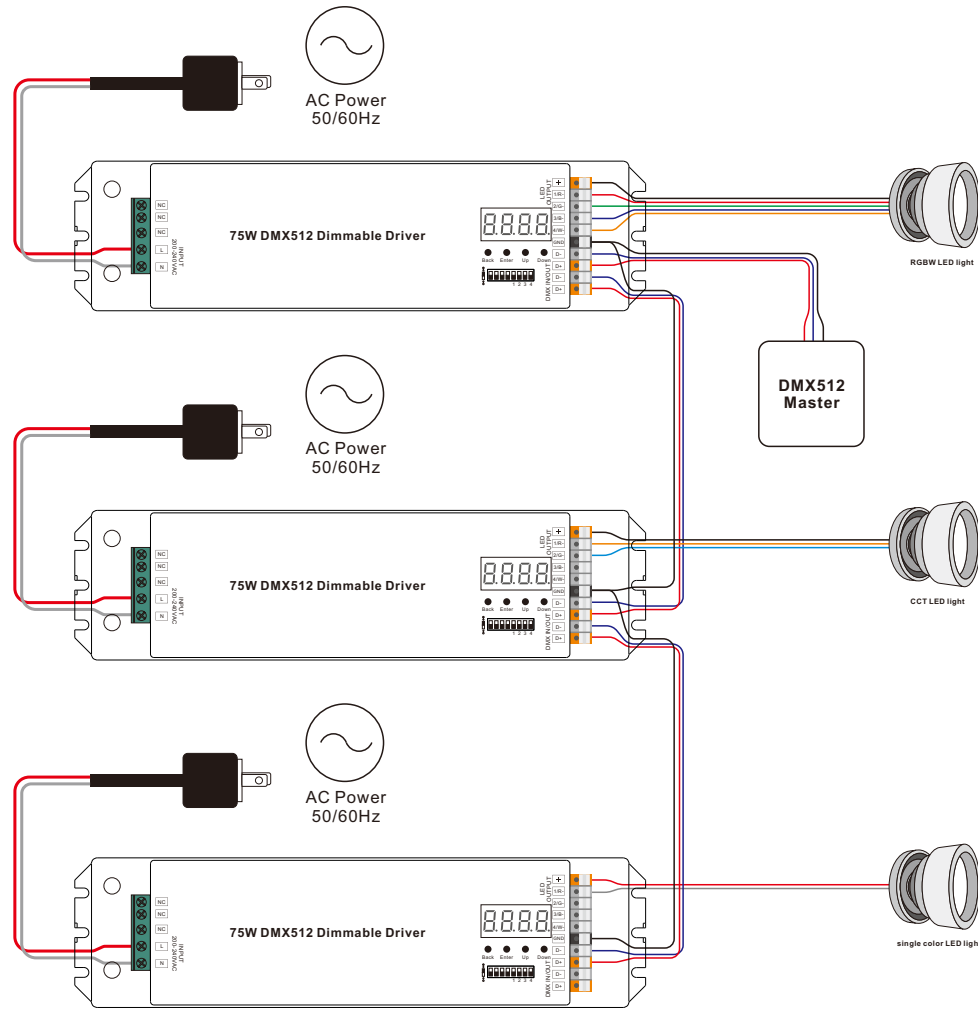{72, 127},//slow push fast close
{128, 133},//undefined
{134, 189},//slow close fast push
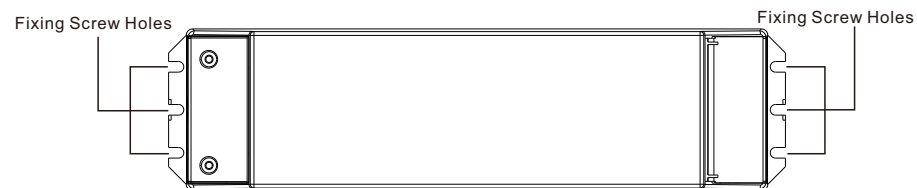{190, 195},//undefined
{196, 250},//random strobe
{251, 255},//undefined

Wiring diagram

Note: When DMX channel is set as CH01 and 4 PWM output channels are wired to LED loads simultaneously, please make sure the operation current of the LED loads does not exceed 1100mA.

Installation

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

Product Dimension