

96W DMX512 & RDM LED Driver(constant voltage)

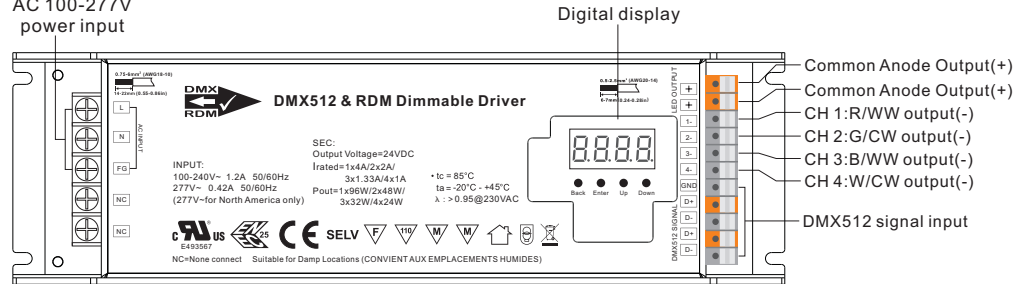
09.96RDV.04767



Important: Read All Instructions Prior to Installation

Function introduction

AC 100-277V
power input



Product Data

Output	LED Channel	4
	DC Voltage	24V DC
	Max. Current	Max. 4A/CH, CH1+CH2+CH3+CH4=4A
	Voltage Tolerance	±1%
	Rated Power	max. 96W
Input	Voltage Range	100-277V AC
	Frequency Range	50/60Hz
	Power Factor (Typ.)	> 0.95 @ 230VAC
	Total Harmonic Distortion	THD ≤ 15% (@ full load / 230VAC)
	Efficiency (Typ.)	93% @ 230VAC full load
	AC Current (Typ.)	1.2A @ 100VAC, 0.5A @ 230VAC, 0.5A@277VAC
	Inrush Current (Typ.)	COLD START Max. 50A at 230VAC
	Leakage Current	< 0.5mA /230VAC
	Standby Power Consumption	< 1W
Control	Dimming Interface	DMX/RDM
	Dimming Range	0%-100%
	Dimming Method	Pulse Width Modulation
	Dimming Curve	Linear, Logarithmic

Protection	Short Circuit	Yes, recovers automatically after fault condition is removed
	Over Current	Yes, recovers automatically after fault condition is removed
	Over Temperature	Yes, recovers automatically after fault condition is removed
Environment	Working Temp.	-20°C ~ +45°C
	Max. Case Temp.	85°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

- Dimmable LED driver with rectangle metal case
- 4 channels 24VDC constant voltage output
- Class 2 power supply, full isolated metal case
- Built-in two-stage active PFC function
- PF > 0.98, Efficiency > 93%
- Low standby power < 1W
- Built-in DMX dimming interface
- Enable to set DMX address, DMX channel quantity, PWM output resolution (8 bit or 16 bit)
- Enable to set PWM output frequency, GAMMA ray dimming curve value and DMX decoding mode
- DMX512(2008), DMX512-A and RDM V1.0 (E1.20 – 2006 ESTA Standard)
- Compliant with Safety Extra Low Voltage standard
- Short circuit, over load, over temperature protection
- IP20 rating, suitable for indoor LED lighting applications
- 5 years warranty

Safety & Warnings

- DO NOT install with power applied to the 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 8 turns on red 8.XXX .



● ● ● ●
Back Enter Up Down

001 XXX Means DMX address. factory defaults setting is 001.

00 XX Means DMX channels quantity.

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

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

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

00 XX Means Decoding mode, factory defaults setting is dp1.1

Press and hold down both buttons Back + Enter simultaneously over 5 seconds until the display go off to restore to factory default settings .

1. DMX address setting:

select menu **001** 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 **00** 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

3. PWM output resolution Bit setting:

select menu **00** XX , click button “Enter”, display flashes, then click button “Up” / “Down”

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		

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

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

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

to choose 08 or 16 bit, then click button “Back” to confirm.

4. output PWM frequency setting:

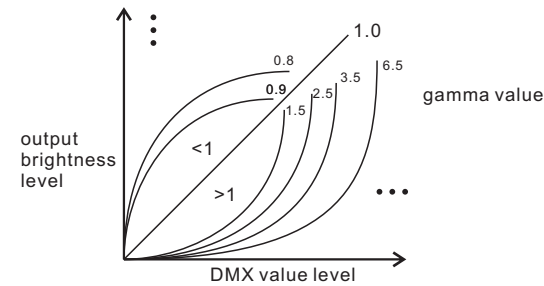
select menu **00** XX , click button “Enter”, display flashes, then click button “Up” / “Down” to choose 00~30,

then click button “Back” to confirm. 00=500HZ, 01=1kHz, 02=2kHz.....30=30kHz.

5. output dimming curve gamma value setting:

select menu **00** 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.



6. DMX decoding mode setting:

select menu **00** XX , click button “Enter”, display flashes, then click or hold button “Up” / “Down” to choose

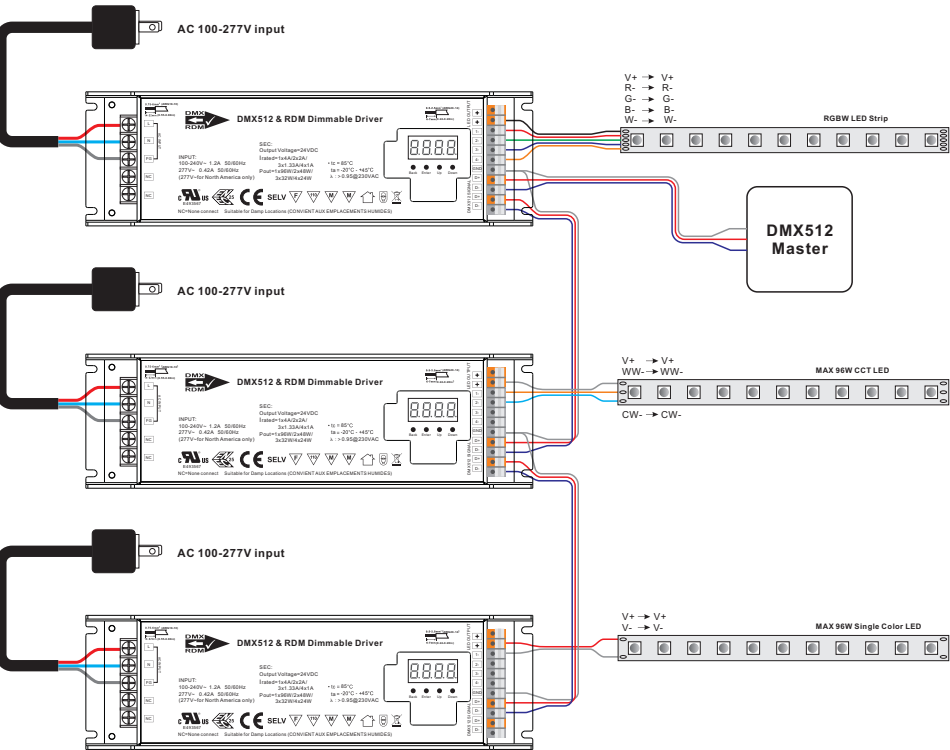
the decoding mode, then click button “Back” to confirm. “dPxx” means the DMX address quantity used for control of corresponding PWM output channel quantity. 1st “x” is DMX address quantity, 2nd “x” is PWM channel quantity.

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	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		

Wiring diagram



Product Dimension

