



# SHENZHEN TWOGAIN ELECTROINCS CO.,LTD

150W LED POWER DRIVER WITH DMX512 DECODER

150W LED POWER DRIVER WITH DMX512 DECODER



Feature: AC power input 100V to 277Vac  
 Built-in active PFC function  
 Efficiency (typ.)90.5%  
 Protections: Shot circuit/Overload/Over voltage/Over temperature  
 -30~+55℃ working temperature  
 Cooling without fan  
 OCP with trimmer resistor  
 IP level: IP65/IP67  
 Support DMX512/1990 protocol, DMX512 decoder  
 Support constant current LED and constant voltage LED  
 Using indoor and outdoor  
 5 years Warranty

#### Applications

LED street lighting  
 LED High-bay lighting  
 Parking space lighting  
 LED fishing lamp  
 LED greenhouse lighting  
 LED strip lighting  
 LED linear lighting

LED power driver with 24V DMX decoder serial

NO.	Type	MODEL	Features	Support	Note
1	Constant voltage output	TG-AC150H-DMX24H01 (DIM)	DMX constant voltage DIM	Single color LED lamp	Table 6
2		TG-AC150H-DMX24H02 (CCT)	DMX constant voltage Bi-color, DIM	Bi-color LED lamp	Table 5
3		TG-AC150H-DMX24H03 (RGB)	DMX constant voltage RGB	RGB LED lamp	Table 4
4	Constant current output	TG-AC150H-DMX24H04 (DIM)	DMX constant current DIM	Single color LED lamp	Table 3
5		TG-AC150H-DMX24H05 (CCT)	DMX constant current Bi-color, DIM	Bi-color LED lamp	Table 2
6		TG-AC150H-DMX24H06 (RGB)	DMX constant current RGB	RGB LED lamp	Table 1
1. Support DMX512/1990, DMX decoder					
2. Automatic DMX signal input or output					
3. Build in DMX signal amplifier					
4. Auto DMX address.					

LED power driver with 48V DMX decoder serial

NO.	Type	MODEL	Features	Support	Note
1	Constant voltage output	TG-AC150H-DMX48H01 (DIM)	DMX constant voltage DIM	Single color LED lamp	Table 6
2		TG-AC150H-DMX48H02 (CCT)	DMX constant voltage Bicolor, DIM	Bi-color LED lamp	Table 5
3		TG-AC150H-DMX48H03 (RGB)	DMX constant voltage RGB	RGB LED lamp	Table 4
4	Constant current output	TG-AC150H-DMX48H04 (DIM)	DMX constant current DIM	Single color LED lamp	Table 3
5		TG-AC150H-DMX48H05 (CCT)	DMX constant current Bicolor, DIM	Bi-color LED lamp	Table 2
6		TG-AC150H-DMX48H06 (RGB)	DMX constant current RGB	RGB LED lamp	Table 1
5. Support DMX512/1990, DMX decoder					
6. Self-identify DMX signal input or output					
7. Build in DMX signal amplifier					
8. Auto define DMX address .					

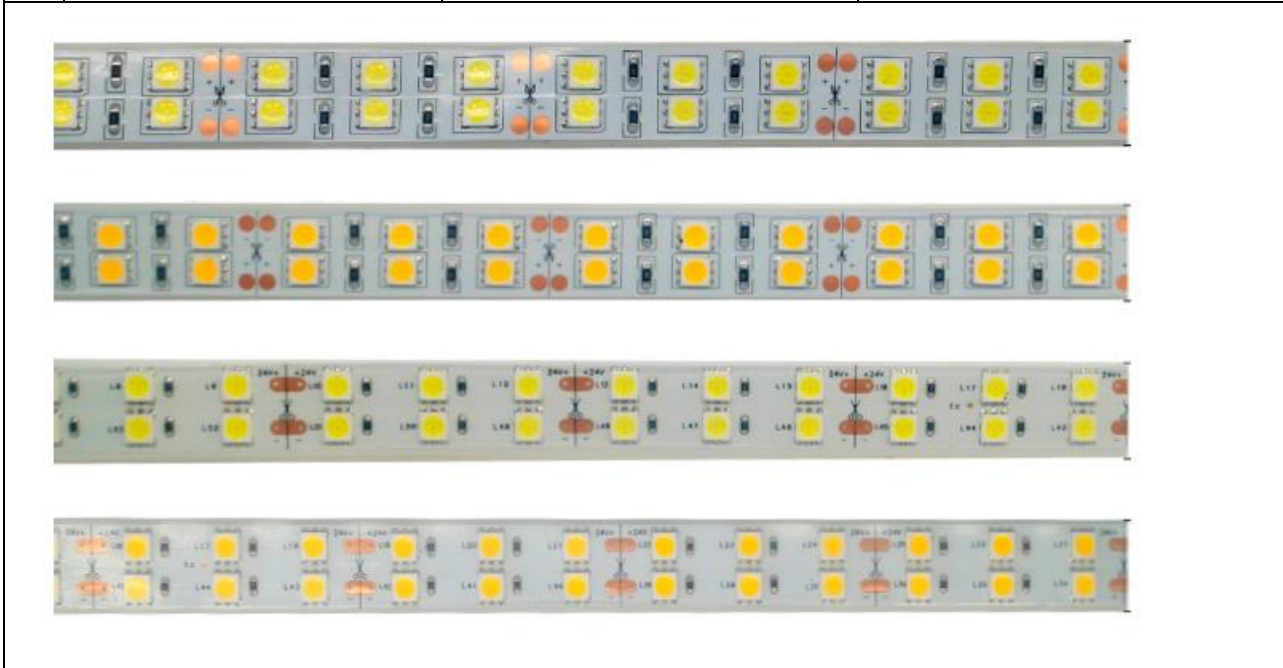
Model Encoding

1. TG=TWOGAIN
2. AC=AC100V~277V
3. 150W=MAX power 150W
4. DMX=Support DMX512/1990 protocol
5. 24=24V 48=48V
6. 01=Constant voltage DIM 02=Constant voltage CCT and DIM 03=Constant voltage RGB  
04=Constant current DIM 05= Constant current CCT and DIM

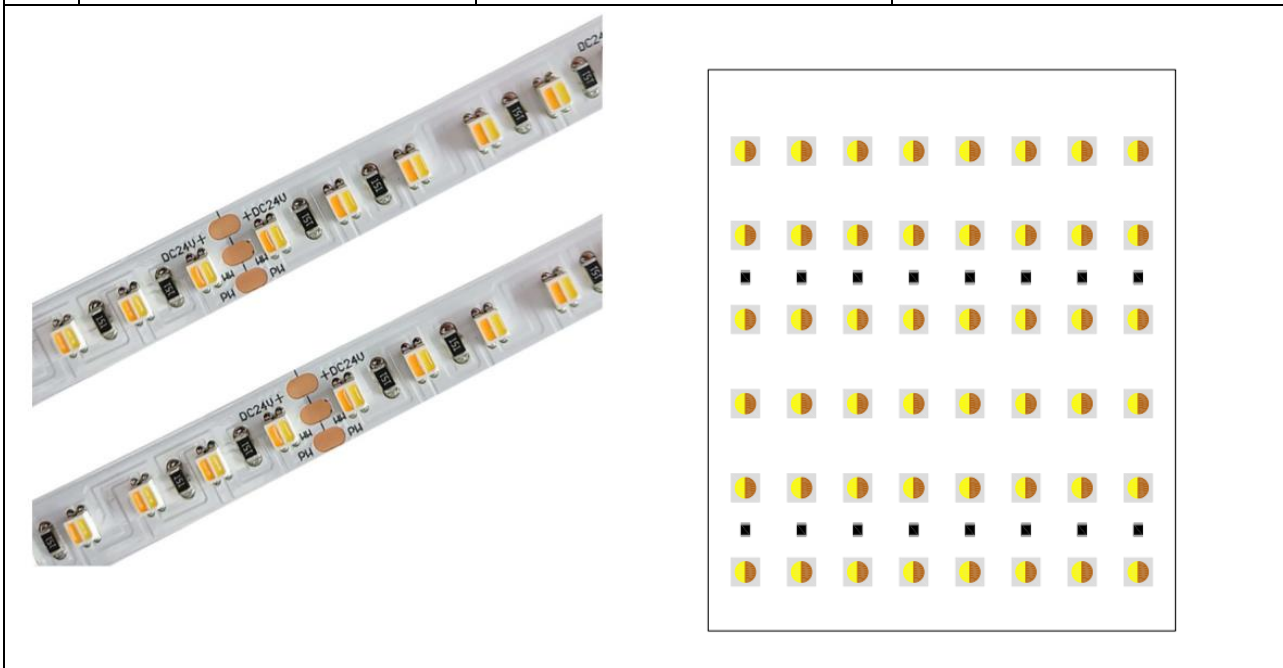
## TG-AC150H-DMX24H01



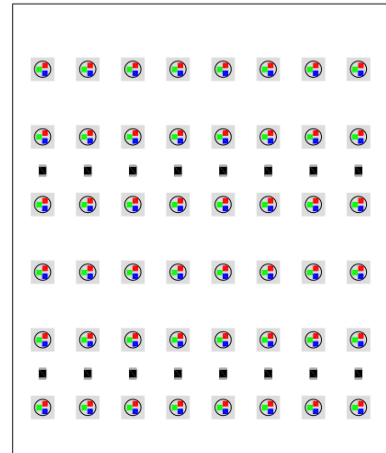
NO	Product MODEL	Description	LED lamp type
1	TG-AC150H-DMX24H01(DIM)	LED constant voltage , decode DMX DIM	Constant voltage single color lamp



NO	Product MODEL	Description	LED lamp type
2	TG-AC150H-DMX24H02(CCT)	LED constant voltage , DMX decode Bi-color and DIM	Constant voltage Bi-color lamp

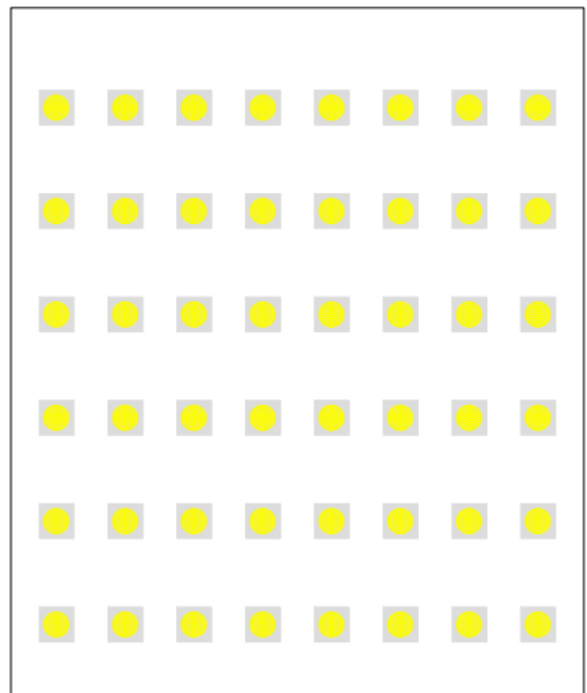


NO	Product MODEL	Description	LED lamp type
3	TG-AC150H-DMX24H03(RGB)	Constant voltage RGB LED, DMX decode RGB	RGB LED lamp

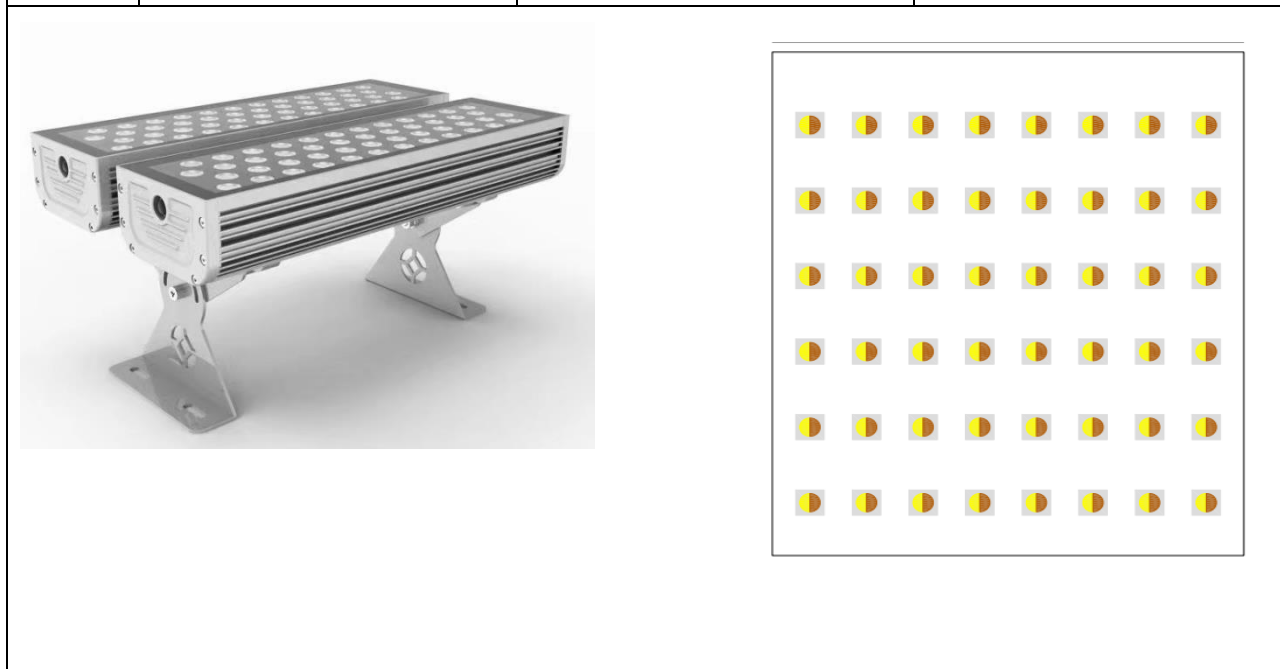


Constant voltage RGB LED

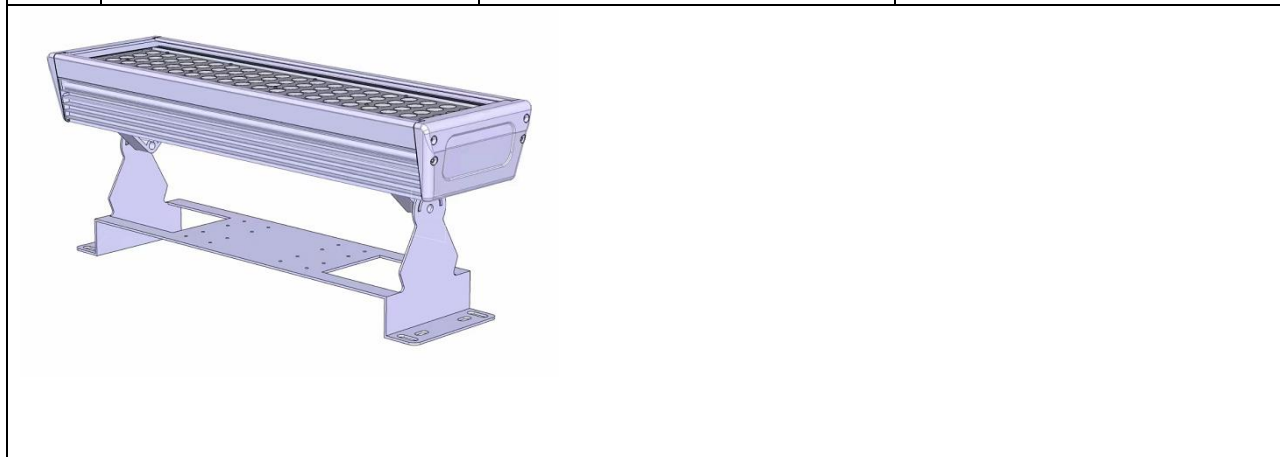
NO	Product MODEL	Description	LED lamp type
4	TG-AC150H-DMX24H04(DIM)	LED constant current ,DMX decode DIM	Constant current Single color lamp



NO	Product MODEL	Description	LED lamp type
5	TG-AC150H-DMX24H05 (CCT)	LED constant current ,DMX Bi-color and DIM	Constant current Bi-Color lamp



NO	Product MODEL	Description	LED lamp type
6	TG-AC150H-DMX24H06(RGB)	Constant current RGB LED, DMX RGB DMX decoder	Constant current RGB LED lamp



## SPECIFICATION TG-AC150H-DMX

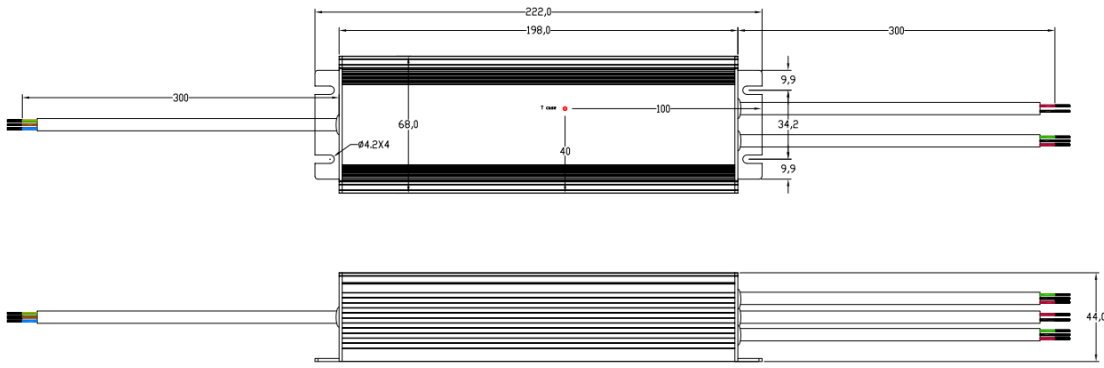
MODEL		24H01 (DIM)	24H01(CCT)	24H03(RGB)	24H04(DIM)	24H05(CCT)	
O U T P U T	DC VOLTAGE	24V					
	ADJUST VOLTAGE RANGE	24V			18~24V		
	RATED CURRENT	6.25A					
	RATED POWER	150W					
	RIPPLE& NOISE (max.)	150mVp-p					
	VOLTAGE TOLERANCE	±1.5%					
	ADJUST VOLTAGE RANGE	CUSTOMER PRODUCTS			24V	24V	24V
		18V~28V(6.25A/18V, 5.3A/28V)					
	ADJUST CURRENT RANGE	CUSTOMER PRODUCTS					
		3.2A~6.25A					
	LOAD ADJUST RANGE	±1%					
SETUP,RISE TIME	1500ms,60ms/100VAC, 700ms,50ms/230Vac						
HOLD UP TIME(Typ.)	15ms, 230VAC/100VAC						
DMX512 DECODER	Auto DMX address self-identify DMX input and output						

MODEL		24H01(DIM)	24H02(CCT)	24H03(RGB)	24H04(DIM)	24H05(CCT)
INPUT	VOTLAGE RANGE	90~305VAC or 127~431VDC				
	FREQUENCY RANGE	47~63Hz				
	PFC	PF>0.98/115VAC,PF>0.95/230VAC,PF>0.93/277VAC(FULL LOAD)				
	EFFICIENCY(Typ.)	90.5%				
	AC CURRENT(Typ.)	1.5A/115VAC	0.7A230VAC	0.6A/277VAC		
	INRUSH CURRENT (Typ.)	61A/230VAC				
	LEAKAGE CURRENT	<0.76mA/277VAC				
PROTECTI ON	OVER LOAD	95%~110% Protection type :Hiccup mode Recovers automatically after fault condition is removed				
	SHORT PROTECTION	Hiccup mode Recovers automatically after fault condition is removed				
	OVER VOLTAGE	Hiccup mode Recovers automatically after fault condition is removed				
	OVER TEMPERATURE	Shut down O/P voltage, recovers automatically after temperature goes down				
ENVIRON MENT	WORKING TEMP.	-30~55 °C				
	WORKING HUMIDITY	20~95% RH non-condensing				
	STORAGETEMP., HUMIDITY	-40~80 °C ,10~95%RH				
	TEMP. CONEFFICIENT	±0.03%/°C				
SAFETY & EMC	VIBRATION	10~500Hz,5G 12min. /1Cycle, each along X,Y,Z 72 axes				
	SAFETY STANDARDS	TUV EN61347-1 EN61347-2-13 independent IP65 OR IP67 CE				
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC IP-FG:2KVAC O/P-FG:1.5KVAC				
	ISOLANTION RESISTANCE	I/P-O/P, IP-FG: 100M Ohms/500VDC/25 °C /70%R				
	EMC EMISSION	Refer to EN55015,EN55022(CISPR22) CLASB,EN61000-3-2 CLASS C(≧ 50 LOAD);EN61000-3-3				
NOTE	EMC IMMUNITY	Refer to EN61000-4-2,3,4,5,6,8,11,EN61547,EN55024 class A				
	DIMENSION	233.7*68*44mm(L*W*H)				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 °C /70%RH					

MODEL		48H01 (DIM)	48H01(CCT)	48H03(RGB)	48H04(DIM)	48H05(CCT)	
O U T P U T	DC VOLTAGE	48V					
	ADJUST VOLTAGE RANGE	48V			42~54V		
	RATED CURRENT	3.125A					
	RATED POWER	150W					
	RIPPLE&NOISE (max.)	150mVp-p					
	VOLTAGE TOLERANCE	±1.5%					
	ADJUST VOLTAGE RANGE	CUSTOMER PRODUCTS			24V	24V	24V
		18V~28V(3.25A/42~54V, 2.6A/54V)					
	ADJUST CURRENT RANGE	Accept Customized					
		1.7A~3.25A					
	LOAD ADJUST RANGE	±1%					
SETUP,RISE TIME	1500ms,60ms/100VAC, 700ms,50ms/230Vac						
HOLD UP TIME(Typ.)	15ms, 230VAC/100VAC						
DMX512 DECODER	Auto DMX address self-identify DMX input and output						

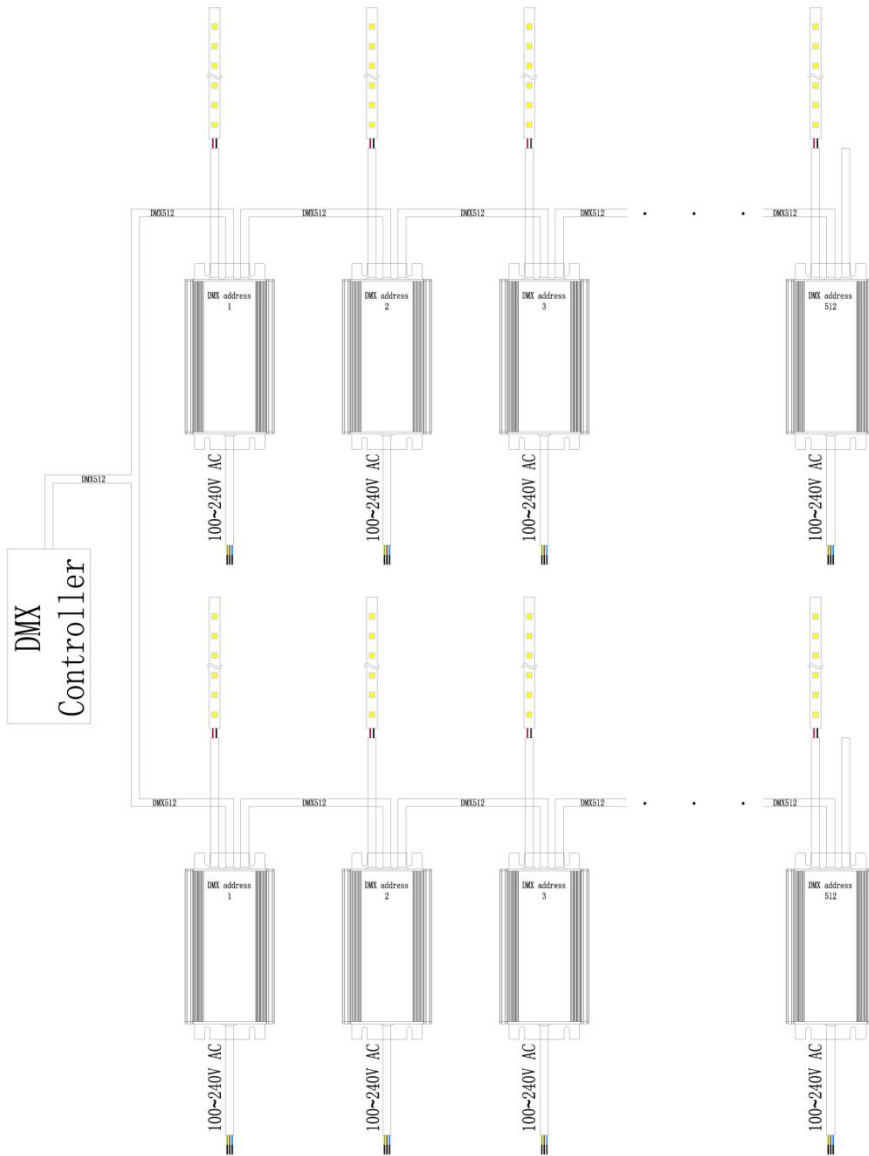
MODEL		48H01(DIM)	48H02(CCT)	48H03(RGB)	48H04(DIM)	48H05(CCT)
INPUT	VOTLAGE RANGE	90~305VAC or 127~431VDC				
	FREQUENCY RANGE	47~63Hz				
	PFC	PF>0.98/115VAC,PF>0.95/230VAC,PF>0.93/277VAC(FULL LOAD)				
	EFFICIENCY(Typ.)	90.5%				
	AC CURRENT(Typ.)	1.5A/115VAC	0.7A/230VAC	0.6A/277VAC		
	INRUSH CURRENT (Typ.)	61A/230VAC				
	LEAKAGE CURRENT	<0.76mA/277VAC				
PROTECTI ON	OVER LOAD	95%~110% Protection type :Hiccup mode Recovers automatically after fault condition is removed				
	SHORT PROTECTION	Hiccup mode Recovers automatically after fault condition is removed				
	OVER VOLTAGE	Hiccup mode Recovers automatically after fault condition is removed				
	OVER TEMPERATURE	Shut down O/P voltage, recovers automatically after temperature goes down				
ENVIRON MENT	WORKING TEMP.	-30~55℃				
	WORKING HUMIDITY	20~95% RH non-condensing				
	STORAGETEMP, HUMIDITY	-40~80℃,10~95%RH				
	TEMP. COEFFICIENT	±0.03%/℃				
	VIBRATION	10~500Hz,5G 12min. /1Cycle, each along X,Y,Z 72 axes				
SAFETY & EMC	SAFETY STANDARDS	TUV EN61347-1 EN61347-2-13 independent IP65 OR IP67 CE				
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC IP-FG:2KVAC O/P-FG:1.5KVAC				
	ISOLANTION RESISTANCE	I/P-O/P, IP-FG: 100M Ohms/500VDC/25℃/70%R				
	EMC EMISSION	Refer to EN55015,EN55022(CISPR22) CLASB,EN61000-3-2 CLASS C(≧ 50 LOAD);EN61000-3-3				
	EMC IMMUNITY	Refer to EN61000-4-2,3,4,5,6,8,11,EN61547,EN55024 class A				
DIMENSION	233.7*68*44mm(L*W*H)					
NOTE	2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃/70%RH					

DIMENSION



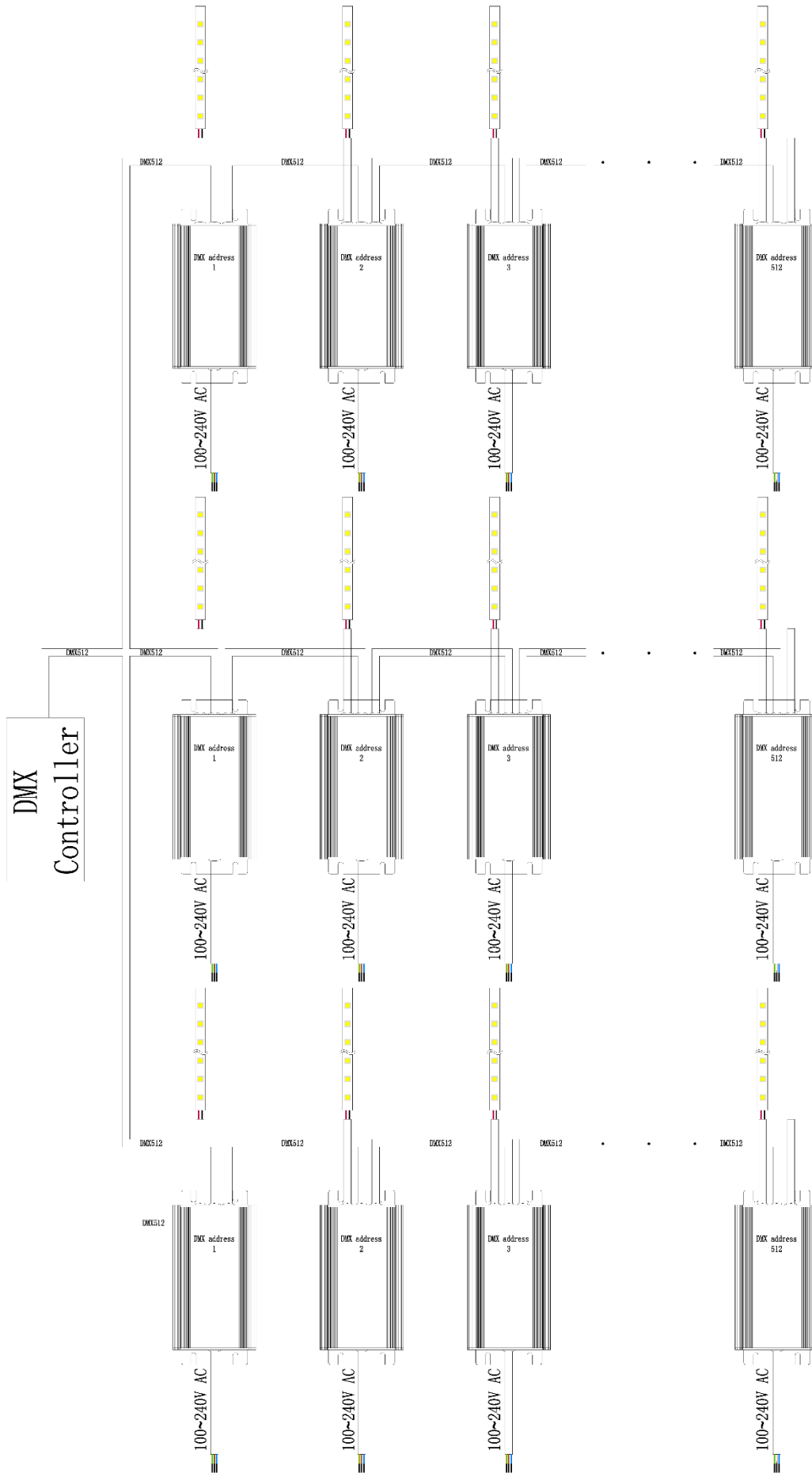
150W demision

DMX connection for single color (fig.1)





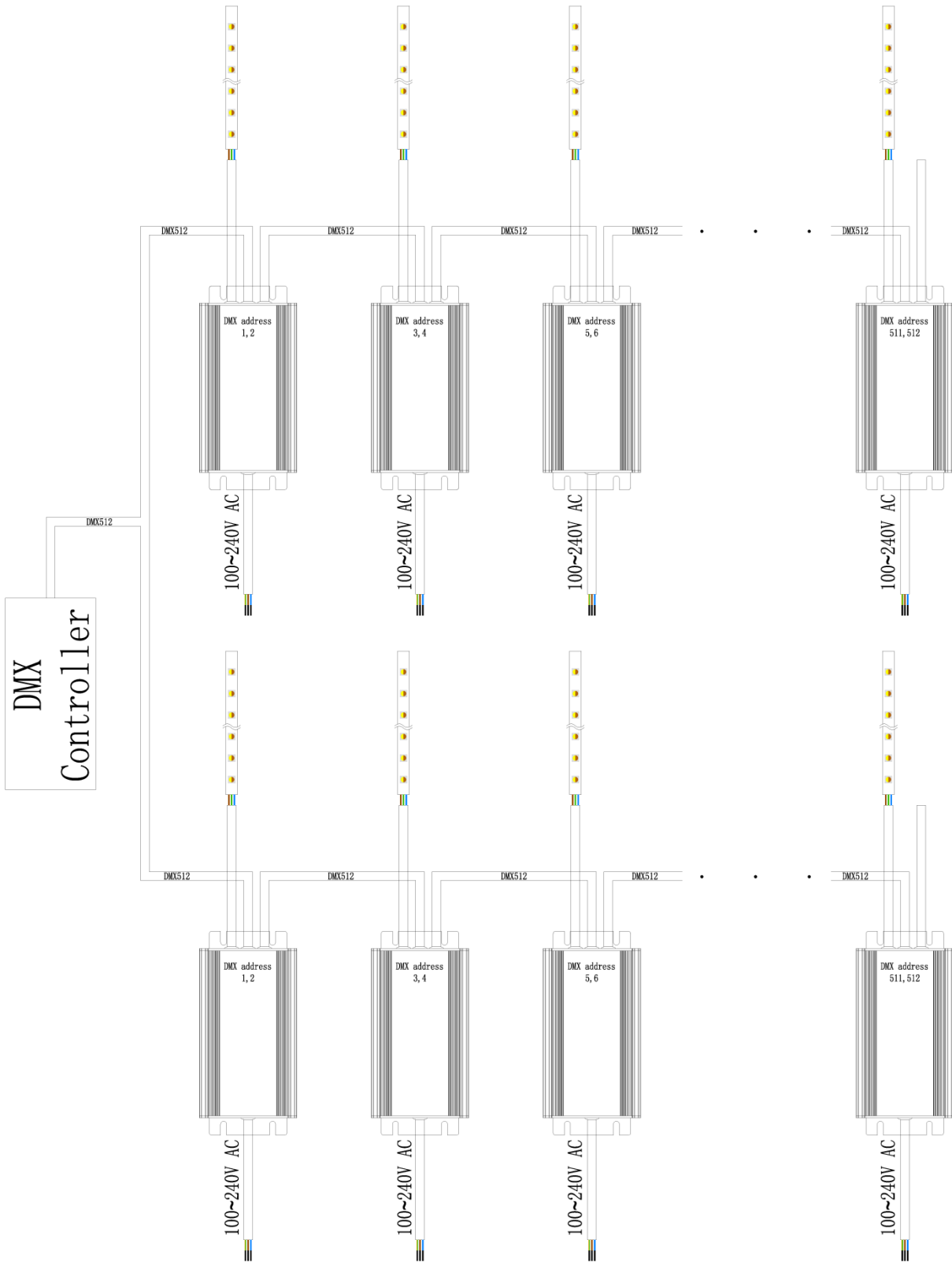
DMX connection for single color (fig.2)



DMX connection for single color (fig.3)



DMX connection for Bi-color (fig.4)



DMX connection for Bi-color (fig.5)



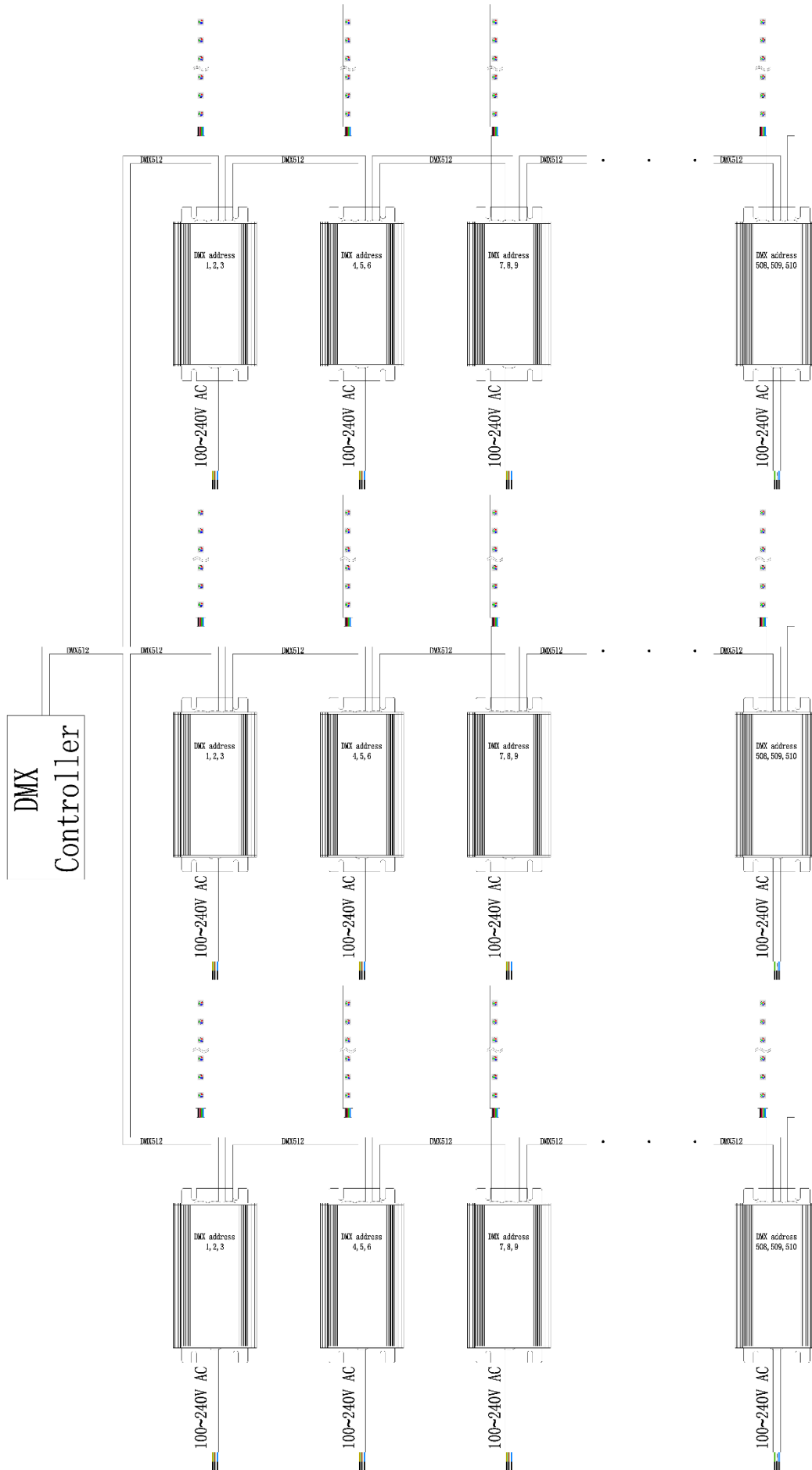
DMX connection for Bi-color (fig.6)



DMX connection for RGB (fig.7)



DMX connection for RGB (fig.8)



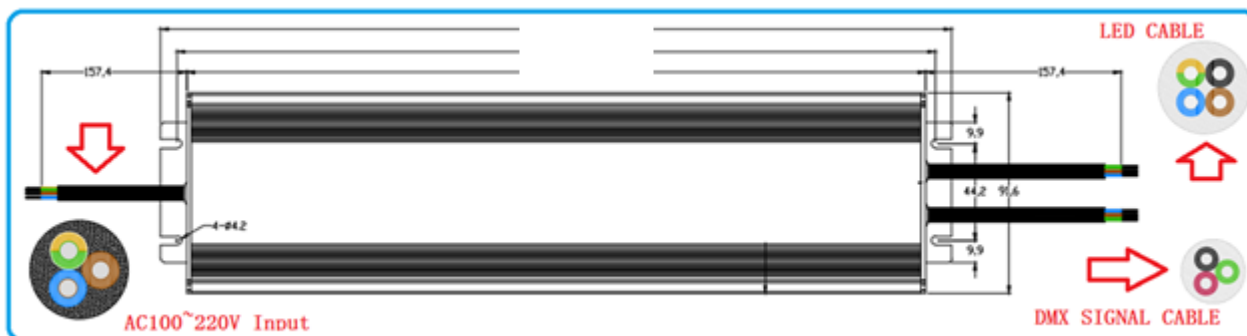
DMX connection for RGB (fig.9)





TG-AC150H-DMX cable define

1. DMX input cable(three core cable) and output cable(three core cable)  
 YELLOW/GREEN color=DMX GND  
 BLACK color =DMX-  
 RED color =DMX+
2. Self-identify DMX signal input or output
3. Auto define DMX address



AC input	
1.	YELLOW/GREEN COLOR : Earth ground
2.	BLUE COLOR : AC_N
3.	BROWN COLOR: AC_L

LED input	
1.	BLACK COLOR: LED+
2.	BROWN COLOR: RED-
3.	GREEN/YELLOW COLOR: GREEN-
4.	BLUE COLOR : BLUE-

DMX CABLE input and output	
1.	YELLOW/GREEN COLOR : DMX GROUND
2.	BLACK COLOR : DMX-
3.	RED COLOR : DMX+

One DMX address of TG-AC150H-DMX									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
...									
						...	510	511	512

Two DMX address of TG-AC150H-DMX									
1,2	3,4	5,6	7,8	9,10	11,12	13,14	15,16	17,18	19,20
...									
						...	507,508	509,510	511,512

Three DMX address of TG-AC150H-DMX									
1,2,3	4,5,6	7,8,9	10,11,12	13,14,15	16,17,18	19,20,21	22,23,24	25,26,27	28,29,30
...									
						...	505,506,507	508,509,510	511,512,X