LED Dimming Driver

0.54~25W 180~700mA 3~54Vdc

- Dimming interface: DMX512/RDM, Push DIM.
- With the RDM remote device management protocol,
- Supports DMX512 signal bi-directional communication.
- PWM digital dimming, no alter LED color rendering index.
- Dimming range: 0~100%, LED start at 0.1% possible.
- Multiple current, wide voltage, compatible with a variety of LED lights.
- Power factor > 0.99, Efficiency > 85%
- Short circuit / Over-heat / Over load protection.
- Class 2 power supply. Full protective plastic housing.
- Compliant with Safety Extra Low Voltage standard.
- Suitable for indoor environments.

SELV 110 F M M CE RoHS

DMX/RDM PUSH DIM | PWM Digital Dimming | PF >0.99 | >85% Efficiency | Over-heat Protection | Short Circuit Protection | Over Load Protection | ON 1 2 3 Multiple Current
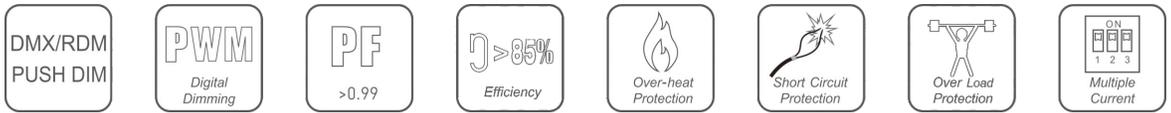
Main Characteristics

Dimming Interface:	DMX512/RDM, Push DIM
Input Voltage Range:	100-240Vac ±10%
Frequency:	50/60Hz
Input Current:	115Vac≤0.28A, 230Vac≤0.15A
Power Factor:	PF>0.99/115Vac , PF>0.95/230Vac, at full load
THD:	≤9% at 115Vac, ≤12% at 230Vac (full load)
Efficiency:	≥85%
Inrush Current(typ.):	Cold start 20A at 230Vac
Leakage Current:	<0.5mA/230Vac
Output Voltage Range:	3-54Vdc
Output Power Range:	0.54W~25W

Current Accuracy:	±3%
No Load Output Voltage :	58Vdc
Dimming Range:	0~100%, LED start at 0.1% possible.
Working Temperature.:	tc: 80°C ta: -30°C ~ 55°C
Working Humidity:	20 ~ 95%RH, non-condensing
Storage Temp., Humidity:	-40 ~ 80°C, 10~95%RH
Temp. Coefficient:	±0.03%/°C(0-50°C)
Vibration:	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes

| Output Current：	180mA	250mA	350mA	400mA	500mA	550mA	600mA	700mA
Output Voltage：	3-54V	3-54V	3-54V	3-54V	3-50V	3-46V	3-42V	3-36V
Output Power：	0.5W-9.7W	0.8W-13.5W	1.1W-18.9W	1.2W-21.6W	1.5W-25W	1.7-25.3W	1.8-25.2W	2.1-25.2W

Protection

Over-heat Protection:	Shut down the output when PCB temp.≥110°C, auto recovers when temp. back to normal.
Over Load Protection:	When O/P voltage exceed its range, O/P current declines, auto recovers when the load is reduced.
Short Circuit Protection:	Shut down automatically if short circuit occurs, auto recovers after faulty condition is removed.

Safety & EMC

Withstand Voltage:	I/P-O/P: 3750Vac
Isolation Resistance:	I/P-O/P: 100MΩ/500VDC/25°C/70%RH
Safety Standards:	IEC/EN61347-1, IEC/EN61347-2-13
EMC Emission:	EN55015, EN61000-3-2 Class C, IEC61000-3-3
EMC Immunity:	EN61000-4-2,3,4,5,6,8,11, EN61547

Others

Dimension:	175×44×30mm(L×W×H)
Packing:	178×48×33mm(L×W×H)
Weight(G.W.):	160g±10g

Dimensions

175
44
170

30

DMX/RDM Connection

N
L

DMX/RDM
0~100% Dimming

Push DIM Connection

N
L

Push DIM
0~100% Dimming
Short press to On/Off, long press to DIM.

The dimming interface priority: First DMX/RDM, next Push DIM.
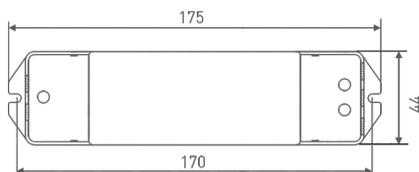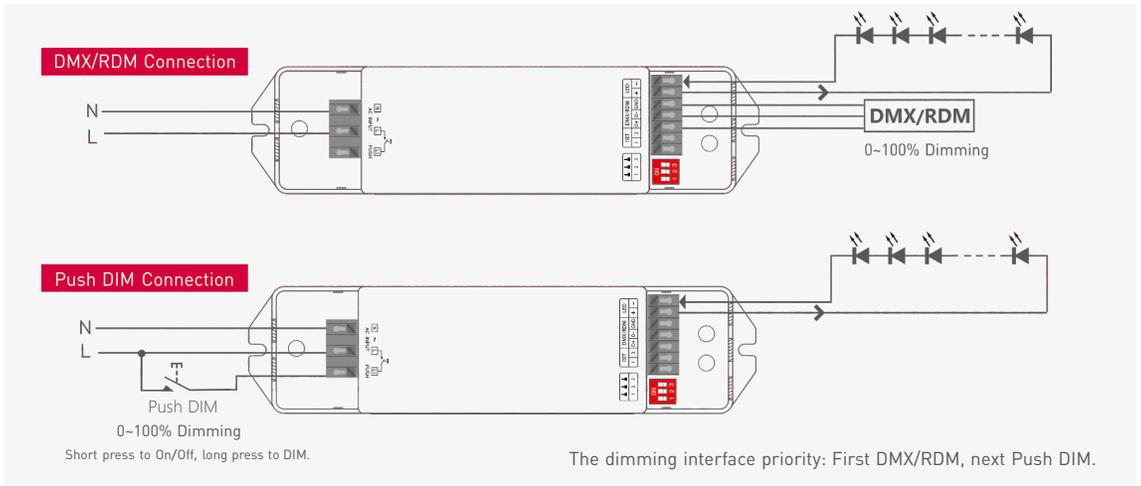
Push Dimming

Reset Switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the light level goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.

RDM Mode: The dip switch 1-9 are OFF.

OFF
ON

DMX Address Setting:

E.g.1: Set Initial Address To 32.
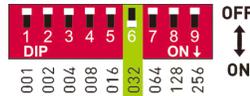
E.g.2: Set Initial Address To 37.

001+004+032=37
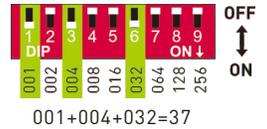
DMX address value=the total value of (1-9)
To get the place value when in "on" position,

LED Current Selection

Quick options: DIP switch for 8 optional currents' quick selection(see the table below).
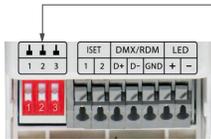
180mA/ISET	250mA	350mA	400mA	500mA	550mA	600mA	700mA	ON	OFF
3-54V	3-54V	3-54V	3-54V	3-50V	3-46V	3-42V	3-36V		

＊ After current setting by DIP switch, power off and then power on to make the new current effective.

E.g. LED 3.2V/pcs: 3-54V can power 1-16pcs LEDs in series, 3-36V can power 1-11pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Advanced options: Dial DIP switch down ⬇⬇⬇, connect ISET port with resistors of different values to set up any current from 180mA to 700mA (specific resistor values refer to the table).
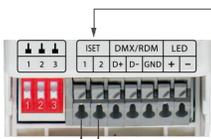
Connecting ISET with resistors can obtain the following typical currents.										
Current(mA)	180mA	200mA	225mA	250mA	275mA	300mA	325mA	350mA	375mA	400mA	425mA
Resistor(KΩ)	∞	99.30 KΩ	61.80KΩ	42.10 KΩ	32.53 KΩ	24.81 KΩ	20.27 KΩ	16.21KΩ	13.76 KΩ	10.82 KΩ	9.41 KΩ

Current(mA)	450mA	475mA	500mA	525mA	550mA	575mA	600mA	625mA	650mA	675mA	700mA
Resistor(KΩ)	7.58 KΩ	6.62 KΩ	5.12 KΩ	4.12 KΩ	3.15 KΩ	2.49 KΩ	1.73 KΩ	1.22 KΩ	0.61 KΩ	0.17 KΩ	0 KΩ

Connect to resistor