

0/1-10V Constant Current LED Driver

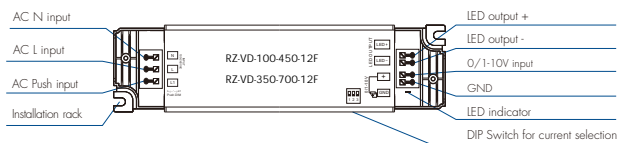
Model No.: RZ-VD-100-450-12F; RZ-350-700-12F



Features

- Dimming interface: 0-10V, 1-10V, 10V PWM, Resistor, AC Push-Dim
- Universal AC input / Full range
- Flicker - Free
- 1 channel constant current output, configurable current via DIP switch
- Built-in active PFC function: 0.95 Typ
- Synchronize on multiple number of LED drivers
- Over-heat / Over-load / Short circuit protection, recover automatically
- Full protective plastic case
- Suitable for indoor LED lighting application
- 5 Year, 50,000hr warranty

Mechanical Structures and Installations



Technical Parameters

Model	RZ-VD-100-450-12F	RZ-VD-350-700-12F		
Output	Output Voltage	9-42VDC	3-24VDC	
	Output Current	100-450mA	350-700mA	
	Output Power	Max. 12W	Max. 12W	
	Max Output Voltage	48VDC	33VDC	
	Dimming Range	0~100%, dimming depth:0.1%		
	PWM Frequency	8000Hz		
	Current Accuracy	±5%		
	Ripple & Noise	<= 100mV		
Input	Input Voltage Range	100~240VAC		
	Frequency Range	50/60Hz		
	Efficiency	>78%		
	Alternating Current	0.3A/115VAC, 0.15A/230VAC		
	Power Factor	>0.99/115VAC, >0.95/230VAC		
	THD	< 6%/230VAC; full load		
	Anti Surge	L-N:1KV		
	Inrush Current	Cold start 2.2A/230VAC		
Protection	Leakage Current	< 0.5mA/230VAC		
	No Load Power	< 2W		
	Over Load Power	When O/P voltage exceed its range, O/P current declines, auto recovers when the load is reduced.		
	Short Circuit	Shut down automatically if short circuit occurs, auto recovers.		
	Over Temperature	Intelligently adjust or turn off the output current if the PCB temp > 100°C, auto recovers.		
	Environment	Working Temperature	-30°C ~ 50°C	
		Tcase Max	70°C	
		Working Humidity	20% ~ 90%RH, non-condensing	
Storage Temp/Humidity		-40°C ~ 80°C, 10% ~ 95%RH		
Temperature Coefficient		±0.03%/°C (0-50°C)		
Vibration Resistance		10-500Hz, 2G, 6min/cycle, X,Y,Z axes/2min		
Safety&EMC	IP Rating	IP20		
	Security Specifications	IEC/EN61347-1, IEC/EN61347-2:13		
	Withstand Voltage	I/PC/P: 3750VAC		
	Insulation Resistance	I/PC/P: 100MΩ/500VDC/25°C/70%RH		
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-2		
	EMC Immunity	EN61000-4-2:3.4.5.6.8.11, EN61347		
Certifications	CE, EMC			

LED Current Selection: on 1 2 3 4 off

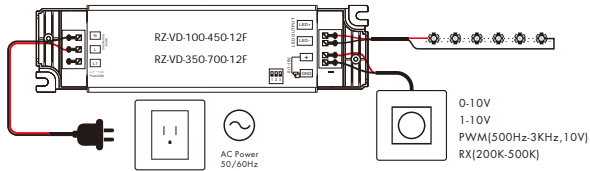
Model															
RZ-VD-350-700-12F	Uout	3-24V	3-24V	3-24V	3-24V	3-22V	3-20V	3-18V	3-17V						
	Iout	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA						
RZ-VD-100-450-12F	Uout	9-42V	9-42V	9-42V	9-42V	9-40V	9-34V	9-30V	9-26V						
	Iout	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA						

Applications

- Suitable for downlight, spotlight and decorative applications.
- Office / Commercial / Domestic Lighting, Hotels, Classrooms, Warehouse, Health care, Retail and Display.
- Use for retrofit upgrades & new luminaire designs.

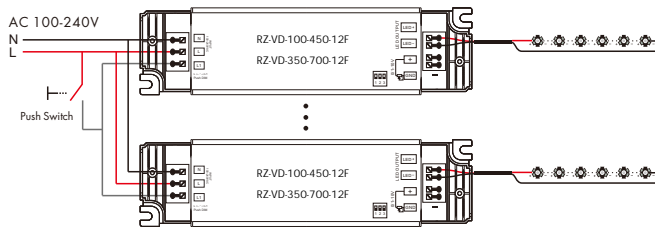
Wiring Diagram

1. 0/1-10V Connection



- The 0/1-10V input is operable via commercially available simple rotary wall switches designed for 0/1-10V dimming equipment or from dedicated system central dimming controllers.
- Compliant with 0-10V, 1-10V, 10V PWM, RX(4 in 1).
- We recommend the number of LED drivers connected to 0/1-10V dimmer does not exceed 50 pieces, The maximum length of the wires from dimmer to LED driver should be no more than 50 meters.
- If the LED driver be used with Push-Dim interface prior to using the 0/1-10V interface, the 0/1-10 V signal should change over 10% to return 0/1-10 V control.

2. AC Push-Dim connection

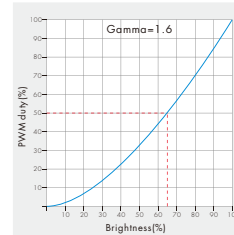


The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches.

- **Short press:**
Turn on or off light.
- **Long press (1-6s):**
Press and hold to stepless dimming,
With every other long press, the light level goes to the opposite direction.
- **Dimming memory:**
Light returns to the previous dimming level when switched off and on again, even at power failure.
- **Synchronization:**
If more than one LED driver are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.
This means there is no need for any additional synchrony wire in larger installations.
We recommend the number of LED drivers connected to a push switch does not exceed 25 pieces,
The maximum length of the wires from push to LED driver should be no more than 20 meters.

Dimming Curve

Push dimming



0/1-10V dimming

