

LED Intelligent Driver



- Dimming interface: 0-10V (1-10V/PWM/RX), Push DIM.
- T-PWM™ digital dimming.
- With soft-on and fade in function, visual more comfortable.
- Automatic recognition of 0-10V, 1-10V input signal.
- Dimming range: 0-100%, LED start at 0.01% possible.
- 0-100% flicker-free, High Frequency Exemption
- Innovative thermal management technology, intelligent power life protection.
- Multi-current & wide voltage, suitable for different power LED.
- Over load / Over-heat / Short circuit protection.
- Suitable for internal lights application for I/II/III.

T-PWM™
Super depth dimming technology

Flicker-free

IEEE 1789

CCC Certificate No.
2018011002096192 (15W/20W)
2018011002097190 (25W/30W)

5 in 1 dimming

0-10V
1-10V
PWM
RX
Push DIM

Dimmable:
0.01%~100%



SELV



RoHS



Class 2



Specification

Model		AD-15-150-700-F1A1	AD-20-200-700-F1A1	AD-25-200-900-F1A1	AD-30-300-900-F1A1
OUTPUT	Output Voltage	10-42Vdc			
	Max Output Voltage	48Vdc			
	Output Current	150-700mA	200-700mA	200-900mA	300-900mA
	Output Power Range	1.5W-15W	2W-20W	2W-25W	3W-30W
	Fluctuation Depth	Almost flicker-free / High frequency exemption assessment level.			
	Dimming Range:	0-100%, dimming depth: 0.01%			
	LF current ripple(<120Hz)	<1%			
	Current Accuracy	±5%			
	Ripple & Noise	≤2V			
PWM Frequency	≤3600Hz				
INPUT	Dimming Interface	0-10V(1-10V/10VPWM/RX), Push DIM			
	Input Voltage Range	100-240Vac, 127-250Vdc (Push Dim is unsupported for DC input)			
	Frequency	0/50/60Hz			
	Input Current	115Vac≤0.2A, 230Vac≤0.1A	115Vac≤0.21A, 230Vac≤0.13A	115Vac≤0.26A, 230Vac≤0.15A	115Vac≤0.31A, 230Vac≤0.18A
	Power Factor	115Vac>0.98, 230Vac>0.9	115Vac>0.98, 230Vac>0.91	PF>0.98/115Vac, PF>0.92/230Vac (full load)	
	THD	230Vac@THD≤15% (full load)	230Vac@THD≤14% (full load)		230Vac@THD≤12% (full load)
	Efficiency	>82%	>83%	>84%	>85%
	Inrush Current(typ.)	Cold start 3.6A at 230Vac (twidth=45µs measured at 50% Ipeak)	Cold start 4.9A at 230Vac (twidth=45µs measured at 50% Ipeak)	Cold start 6.4A at 230Vac (twidth=50µs measured at 50% Ipeak)	
	Control surge capability	L-N: 1kV			
Leakage Current	<0.5mA/230Vac				
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 80°C			
	Working Humidity	20 ~ 95%RH, non-condensing			
	Storage Temp., Humidity	-40°C ~ 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.				
PROTECTION	Over-heat Protection	PCB temp.: >110°C, shut down; 100°C~110°C, output power reduces to 50% of current power; <90°C, normal.			
	Over Load Protection	Power limit when rated power ≥ 102%-125%, 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			
	Strobe Test Standard	IEEE 1789			
OTHERS	Dimension	167×41×32mm[L×W×H]			
	Packing	168×43×35mm[L×W×H]			
	Weight[G.W.]	165g±10g			

LED Current Selection

DIP switch for 8 optional currents' quick selection

DIP switch										
AD-15-150-700-F1A1	Output Current	150mA	200mA	300mA	350mA	500mA	550mA	650mA	700mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-30V	10-27V	10-23V	10-21.5V	
	Output Power	1.5-6.3W	2-8.4W	3-12.6W	3.5-14.7W	5-15W	5.5-14.85W	6.5-14.95W	7-15.05W	

DIP switch										
AD-20-200-700-F1A1	Output Current	200mA	250mA	300mA	350mA	550mA	600mA	650mA	700mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-36V	10-33V	10-31V	10-29V	
	Output Power	2-8.4W	2.5-10.5W	3-12.6W	3.5-14.7W	5.5-19.8W	6-19.8W	6.5-20.15W	7-20.3W	

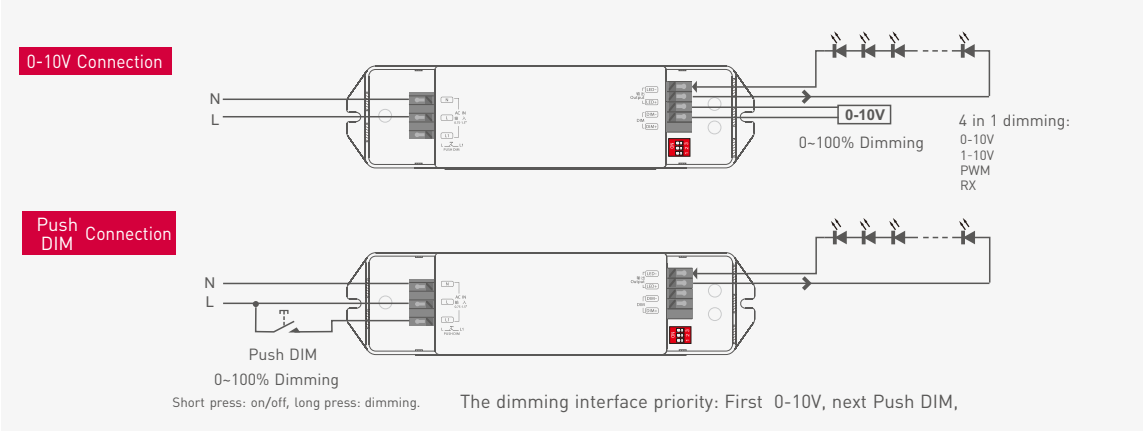
DIP switch										
AD-25-200-900-F1A1	Output Current	200mA	300mA	400mA	500mA	600mA	700mA	800mA	900mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-42V	10-36V	10-31V	10-28V	
	Output Power	2W-8.4W	3W-12.6W	4W-16.8W	5W-21W	6W-25.2W	7W-25.2W	8W-24.8W	9W-25.2W	

DIP switch										
AD-30-300-900-F1A1	Output Current	300mA	350mA	450mA	500mA	700mA	750mA	850mA	900mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-42V	10-40V	10-36V	10-34V	
	Output Power	3W-12.6W	3.5W-14.7W	4.5W-18.9W	5W-21W	7W-29.4W	7.5W-30W	8.5W-30.6W	9W-30.6W	

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

* E.g. LED 3.2V/pcs: 10-42V can power 3-13pcs LEDs in series, 10-21.5V can power 3-6pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Connections



Push Dimming

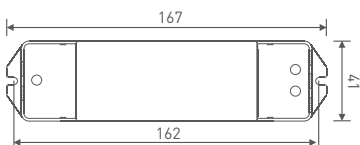


Reset Switch

- 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.

Dimensions

Unit: mm



Graph

Model	AD-15-150-700-F1A1	AD-20-200-700-F1A1	AD-25-200-900-F1A1	AD-30-300-900-F1A1
Efficiency Curve 115Vac input				
Efficiency Curve 230Vac input				
Power Factor Characteristic 115Vac input				
Power Factor Characteristic 230Vac input				
THD Distortion Characteristic Curve 115Vac input				
THD Distortion Characteristic Curve 230Vac input				
Inrush Current (typ.)	 Ipeak 3.6A Input voltage 230V Twid 45us Input voltage 230V, measured at 50% Ipeak	 Ipeak 4.9A Input voltage 230V Twid 45us Input voltage 230V, measured at 50% Ipeak	 Ipeak 6.4A Input voltage 230V Twid 50us Input voltage 230V, measured at 50% Ipeak	 Ipeak 6.4A Input voltage 230V Twid 50us Input voltage 230V, measured at 50% Ipeak
Current vs voltage	 Vo[V] Io[mA]	 Vo[V] Io[mA]	 Vo[V] Io[mA]	 Vo[V] Io[mA]