

ADP-18WFPD**PWM-Dimmable Constant Current for LED drive**

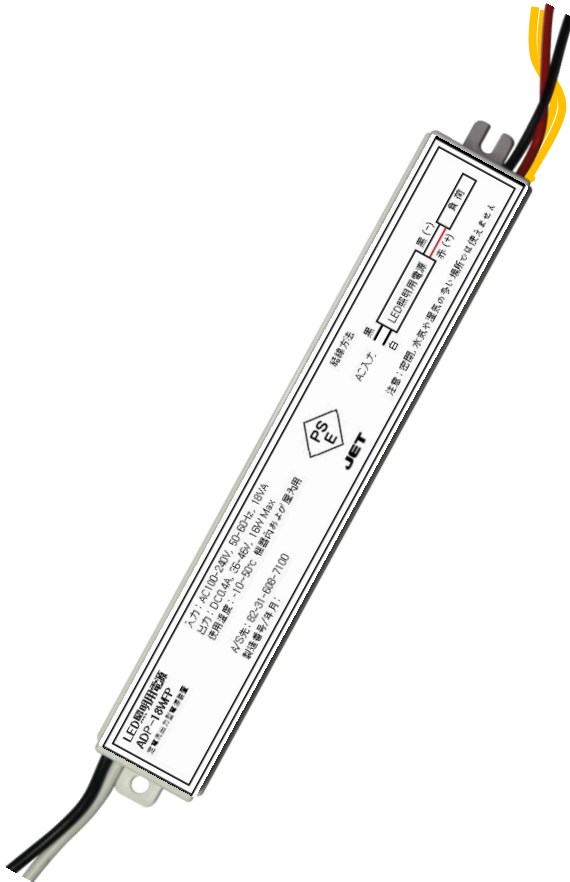
32~42V/420mA

Features

- AC 100-240V wide input voltage range
- Constant current output
- Wide Dimming range (3~100%)
Non-polar PWM Dimming
- 32~42V wide constant current operation range
- Flicker-Free (Output ripple ratio Max: 3%)
- Active PFC correction, PF>0.90
- Low input current THD (Meet IEC61000-3-2 Class C)
- RoHS, Water Resist, Compact size
- Long life time over 40.000 Hr
- Short output protection
- Certified KC-Korea & PSE-Japan

Applications

- LED Lighting
- Advertising Light panel

Electrical characteristics

Parameter	Symbol	Conditions*	Specification*			Unit
			Min	Typ	Max	
Input supply voltage	V_{IN}		90	220	242	V_{AC}
Input current	I_{IN}	$V_{IN}=100V/20W$	0.18	0.20	0.22	A
Power consumption	P_{IN}	$V_{IN}=100V/V_O=40V$	19	20	21	W
Power factor	$\text{Cos}\theta$	$V_{IN}=100V/20W$	0.95	0.99		
Output current	I_O	$V_{IN}=100/220V$	400	420	440	mA
Available output voltage	V_{O-REF}	$V_{IN}=100/220V$	32		42	V
No load output voltage	V_{o-open}	$V_{IN}=100/220V$			50	V
Efficiency		$V_{IN}=100/220V$	81	84		%

* Output current is 420mA and voltage is 40V

Absolute maximum ratings

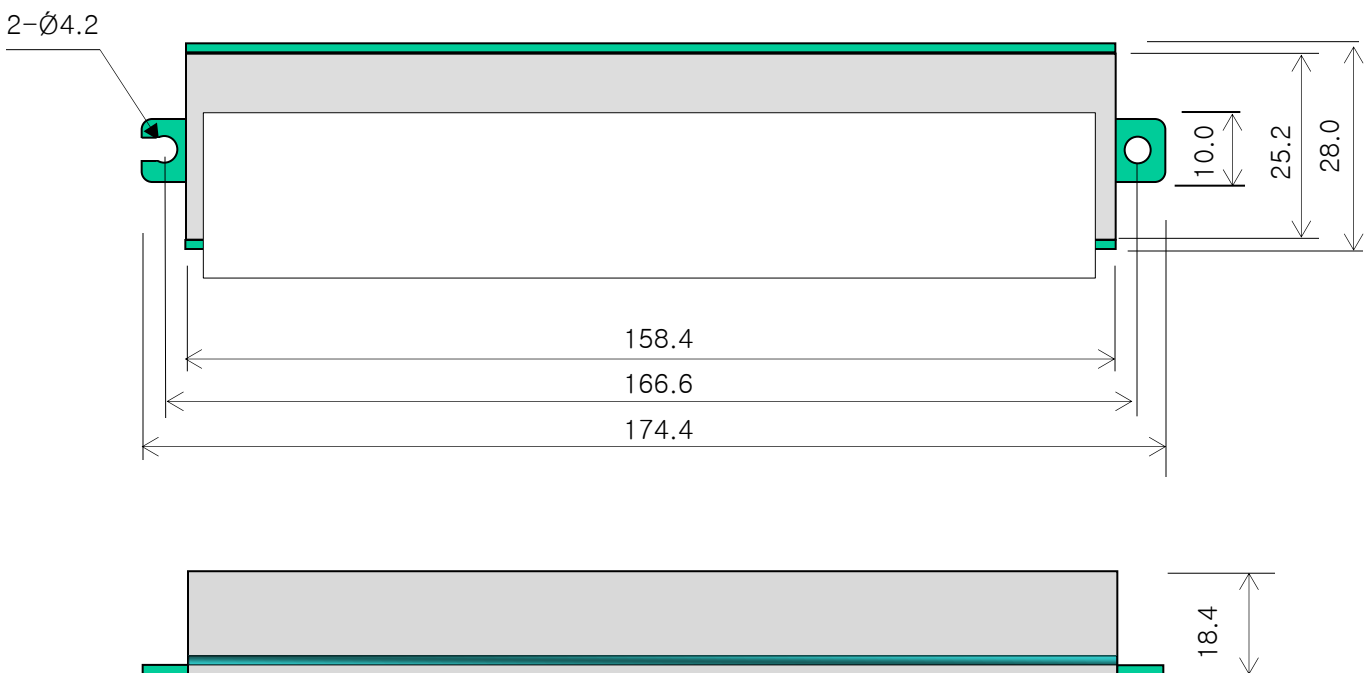
Lower Input supply voltage (V_{IN})	-----	85V
Higher Input supply voltage (V_{IN})	-----	264V
Maximum output voltage with load	-----	43V
Minimum output voltage with load	-----	30V
Output current (I_o)	-----	500mA
Input power	-----	24W
Ambient operating temperature	-----	-20 °C to 50 °C
Storage temperature range	-----	-30 °C to 80 °C
Operating & storage humidity	-----	10 % to 85 %

Input & Output Wire or terminals

AC Input	:	White & Black, AWG-18 (KSC3304) 180mm Length
DC Output	:	DC+ : Red, AWG-22, 230mm Length DC- : Black, AWG-22, 230mm Length
Dimming Control (Option)	:	Yellow/Yellow (Non-Polar), AWG-22, 220mm Length

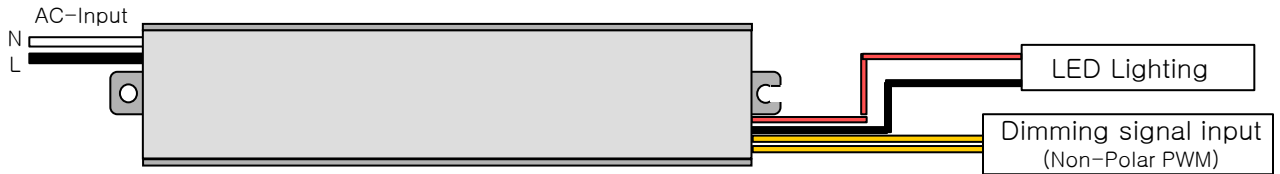
Mechanical dimensions

Tolerance : ± 0.5
Unit : mm



Dimming Control

► Dimming connection diagram

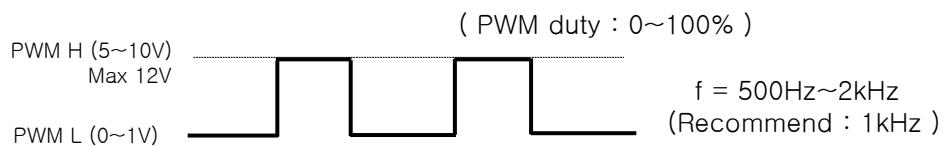


► Dimming characteristics

- 1) No flickering due to the PWM control input
- 2) LED lighting is maximum bright when dimming signal input is open (no use)
- 3) Input impedance : around 15k Ω
- 4) Dimming range : around 3%~100%

Dimming control PWM duty	LED lamp
Dimming control input open (no use)	Maximum bright
Over 95%	Minimum bright
95% to 5%	Smooth brightness change from 3% to 100%
Under 5%	Maximum bright

- PWM control input signal



- Dimming curve characteristics

