PRODUCT SPECIFICATION

Product Model： 57 Watt —PXD57W

Version Number： V3.0

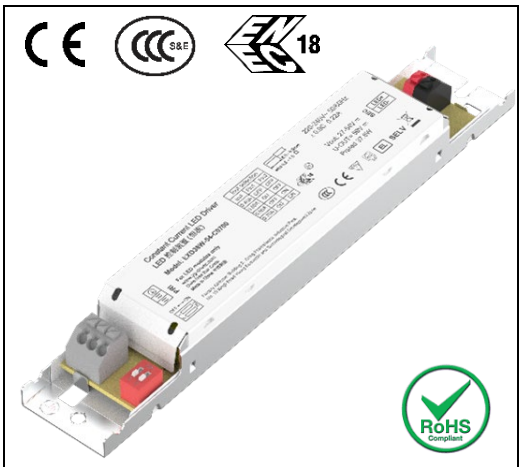
Created	Validated	Approved
Jinqiang Li	Joe Wang	Pengfei Yin

Version	Description of change	Date
V3.0	1.Minimum storage temperature (Ts) updated to -25 ℃.	2023-05-12

57W —PXD57W V3.0

Small & Efficient Series & constant current LED driver

PXD57W driver is a high performance LED driver power supply, using constant current output control, Safe isolation, lowest output ripple.



Size \ Unit	Inch	Millimeter
Case Length	8.27	210.0
Case Width	1.18	30.0
Case Height	0.83	21.0
Mounting Length	7.8	198

Key Features

- Drive Mode: Flicker-Free Constant Current.
- Technology: Boost + Flyback technology.
- Input Voltage: 220 to 240 Vac (maximum: 198 to 264Vac)
  220 to 240 Vdc (maximum: 176 to 280Vdc)
- Frequency: 47-63 Hz.
- Output Power: 56.7 Watt Max.
- Output Voltage: 27 Vdc to 54 Vdc.
- Output Current: 700 mA to 1050 mA.
- Efficiency: Up to 88%.
- Warranty: 5 years.

Special Features

- Constant current with Flicker-Free.
- A rated lifetime of 50,000 hours @ Tc = 80 °C
- Primary side and secondary side are isolated safely, AC input DC output.
- Surge: line to line 1KV/2Ω 8/20 us, line to earth 2KV/12Ω 8/20us.
- Metal shell. Accord to RoHS Standard.
- IP20, Compliant for Dry, Damp.
- Meet Class I and Class II lighting fixtures.
- Programmed controlled aging test at Ta = 50 °C.

Main Electrical Specification

Part Number	Maximum output power	Output Voltage	Maximum Output Constant Current	Current Accuracy	Max.Eff
PXD57W-54- C1050-F	56.7W	27-54Vdc	1050mA	±5%	88%

Input Specifications

Parameter	Min.	Typ.	Max.	Notes /Conditions
Input Voltage	198Vac	---	264Vac	220, 230, 240Vac Nominal Values.
	176Vdc	---	280Vdc	220, 230, 240Vdc Nominal Values.
Input Frequency	47Hz	50/60Hz	63Hz	50/60Hz Nominal.
Input AC Current	---	---	0.33A	Measured at 230Vac / 50Hz Input, Output Full Load.
No-load power consumption	---	---	0.5W	Unloaded time.
Startup surge current (Peak)	---	30A / 350uS	---	50% Ipeak& 240Vac / 50Hz Input, Output Full Load.
Leakage Current	---	---	2mA	Measured at 230Vac / 60Hz Input, Output Full Load.
THD	---	---	20%	Measured at 230Vac Input, Output Full Load.
Power Factor (PF)	0.95	---	---	Measured at 230Vac Input, Output Full Load.

Output Specifications

Parameter	Min.	Typ.	Max.	Notes /Conditions
Output Constant Current	Per Table	Per Table	Per Table	Per Tables on Page 1
Current Selection	-5%	1050mA	+5%	Pin1-ON, Pin2-ON.
		900mA		Pin1-OFF, Pin2-ON.
		850mA		Pin1-ON, Pin2-OFF.
		700mA		Pin1-OFF, Pin2-OFF.
Output Power	---	---	Per Table	Per Tables on Page 1
Ripple wave (<120Hz)	---	5%	10%	20MHz BW, Test end parallel 0.1uF & 10uF capacitance Ripple Index is defined as [(Ymax-Ymin)/Ymean] /2* 100%. Y be V or I.
Fulfill TLA	PstLM<1, SVM<0.4			
Line Regulation	-5%	---	+5%	Fully loaded output, measured at 198 Vac, 230 Vac, 264Vac /50Hz input.
Load Regulation	-5%	---	+5%	Load 27-54 Vdc output, measured at 230Vac / 50Hz input
Start-up Time	---	60ms	500ms	Fully loaded output, measured at 230Vac / 50Hz input.
Output Overshoot	-2%	---	+10%	Measured at 230Vac / 50Hz Input, When power on or off.

Protection Specifications

Parameter	Min.	Typ.	Max.	Notes /Conditions
Output Short Circuit (SCP)	---	---	---	No Damage. Auto recovery after short is removed.
Output Over Current (OCP)	---	---	+10% Io	Constant Current Limiting circuit.
Output Over Voltage (OVP)	---	---	120% Vo	No Damage. Auto recovery after short is removed.

General Specifications

Parameter	Typ.	Notes /Conditions
Cooling	Convection	
MTBF	410,000 hours	Measured at 230Vac input, 100%Load and Ta=25°C (MIL-HDBK-217F).
Lifetime	50,000 hours	Measured at 230Vac input, 100%Load and TC=80°C.
Product Noise	< 24dbA	Class A, Not to exceed at 1 meter at any dim level.

Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes /Conditions
Operating Temperature (Ta)	-20°C	---	+50°C	@230Vac. This is a reference range. Tc controls temperature range.
Case Temperature (Tc)	-20°C	---	+80°C	Measured at location specified on case.
Storage Temperature (Ts)	-25°C	---	+85°C	Non-operating temperature range.
Operating Humidity	5% RH	---	95% RH	Relative Humidity. Non-condensing.
Vibration	5Hz	---	55Hz	2G, 10 minutes / 1 cycle, period 30 minutes, each along X, Y, Z axis.

Safety compliance

Parameter	Notes /Conditions
Withstand voltage value	Input-output 3750Vac
Enclosure - Output	1.5KVac
Enclosure - input	1.5KVac
Insulation resistance	Input-output >10MΩ, 500Vdc @ 25°C, 70% RH.

Ground connection (PE)	In end-use applications, the metal housing of the driver must be connected to ground (PE).

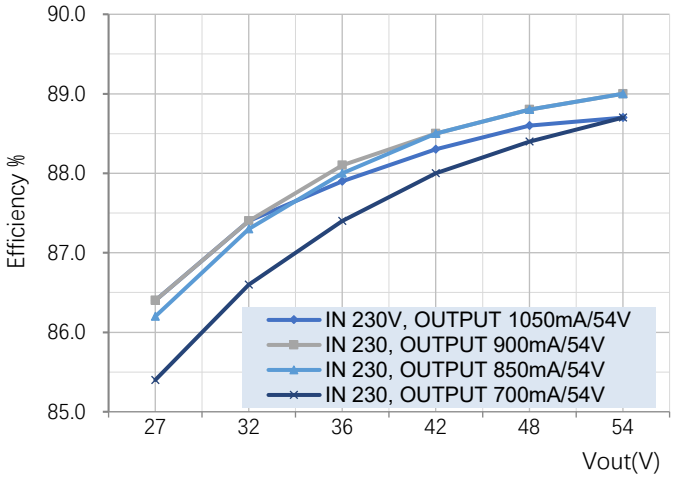
EMC Compliance

EMI Category	Standards
CCC	GB19510.14-2009, GB19510.1-2009
CE	EN55015:2013+A1:2015, EN 61000-3-2:2014, EN 61000-3-3:2013. RED 2014/53/EU
EMI Category	**Standards**
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 1.0 KV/2Ω 8/20 us, line to earth (PE) 2.0 KV/12Ω 8/20 us
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61547	Electromagnetic Immunity Requirements Applies to Lighting Equipment

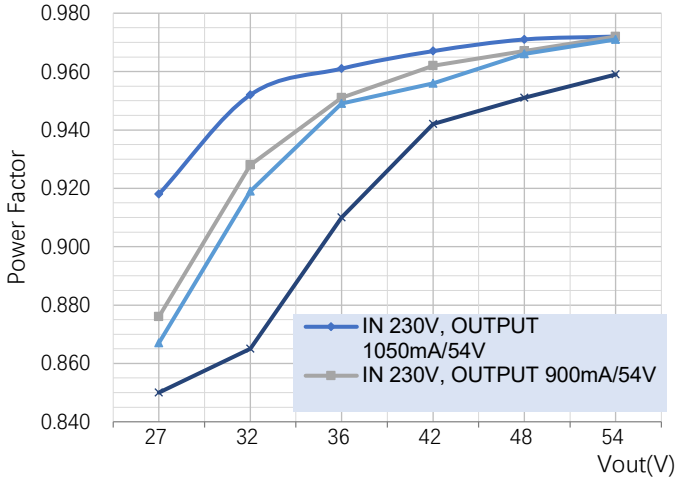
Note: The above test data are in the condition of 25℃ ambient temperature, except for the marked temperature.

Characteristic Curve

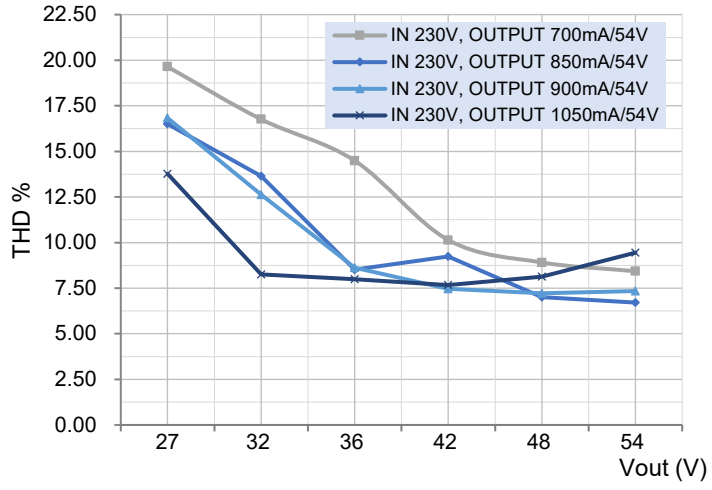
Typical Efficiency vs Vout at 25℃ Ambient



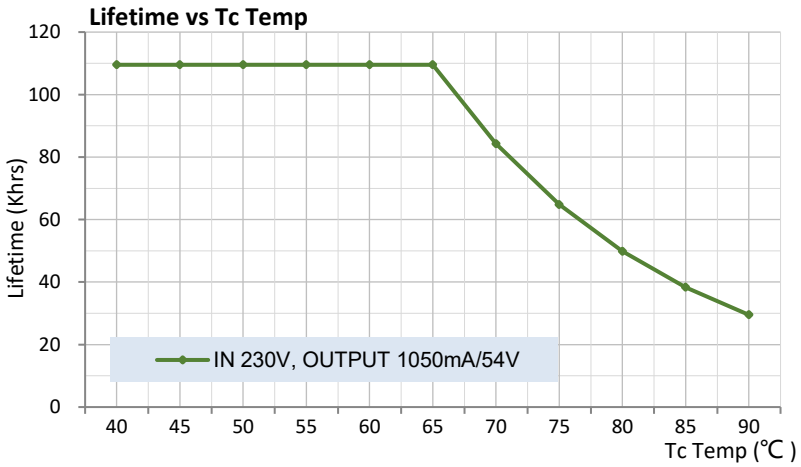
Typical PF vs Vout at 25℃ Ambient Temp



Typical THD vs Vout at 25℃ Ambient Temp



Lifetime Curve



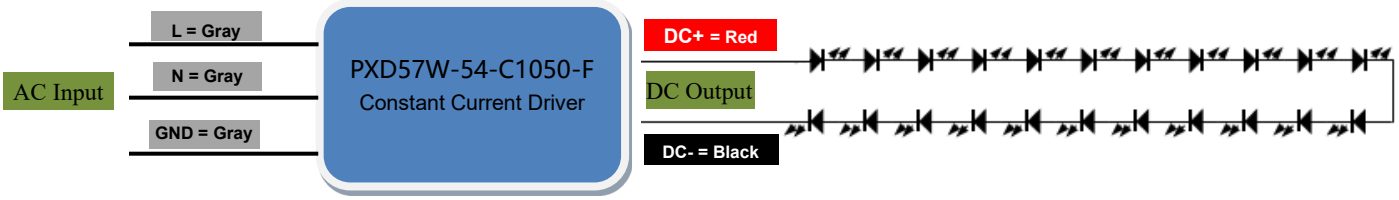
Installation

AC input wires cross section ： 0.75-1.5^2

DC output wires cross section ： 0.50-1.5^2

Note: The max length of DC output line is less than 2 m.

Typical Applications

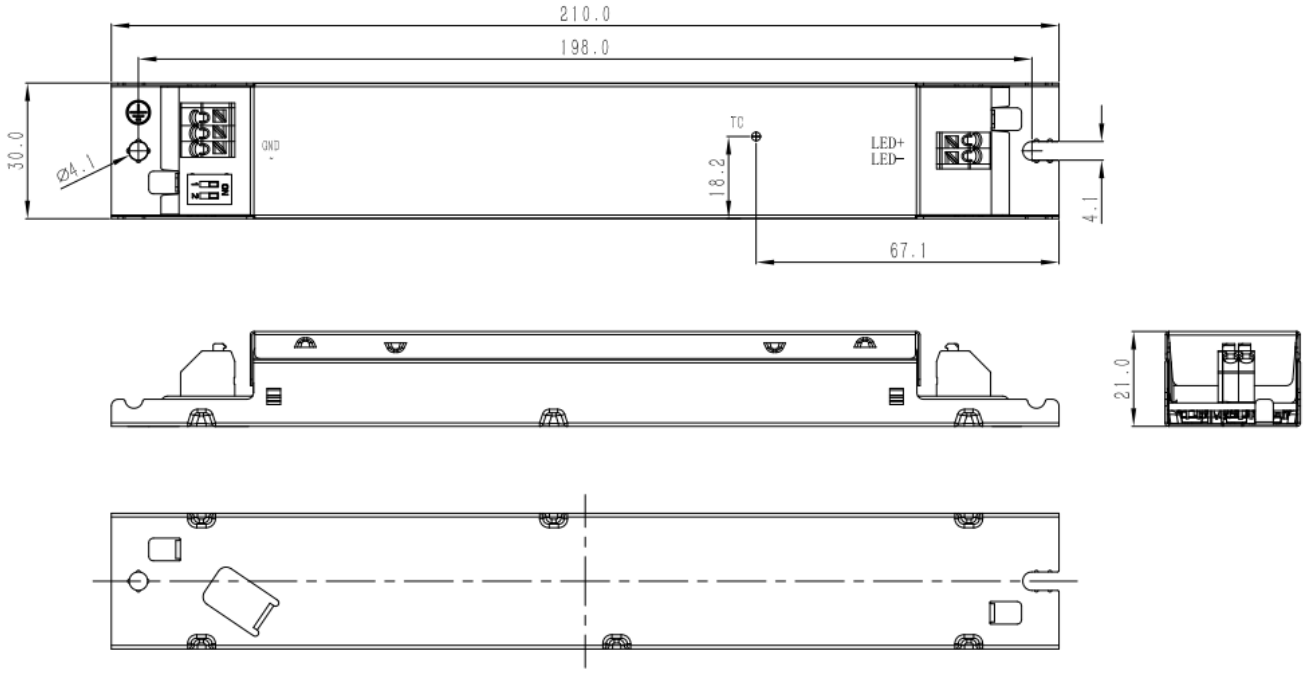


Order ID

P/N:PXD57W-54-C1050-F

Description：56.7W，Maximum 54Vdc, constant current 1050mA output.

Product Size



Note:

- The independent LED drive conforms to the EMC standard. But it is not guaranteed to be qualified when the drive is mounted in the LED fixture.
- Please forgive us for any discrepancy due to the update of the specifications or the upgrade of the product. If you need the latest information, please contact our marketing department.