PRODUCT SPECIFICATION

Product Model：38 Watt —PXD38W

Version Number：V3.0

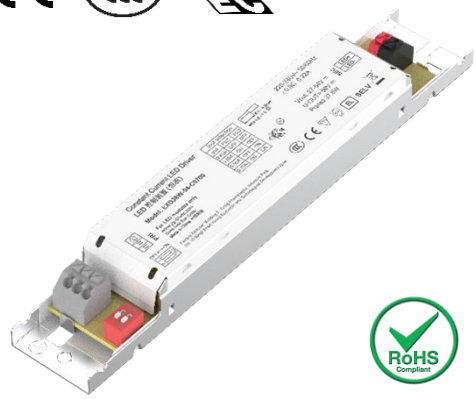
Created	Validated	Approved
Jinqiang Li	Joe Wang	Pengfei Yin

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

38W —PXD38W V3.0

Small & Efficient Series & constant current LED driver

PXD38W Series driver is a high performance LED driver power supply, using constant current output control, Safe isolation, lowest output ripple.



Unit / Size	Inch	Millimeter
Case Length	7.08	180.0
Case Width	1.18	30.0
Case Height	0.83	21.0
Mounting Length	6.61	168

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: 37.8 Watt Max.
- Output Voltage: 27 Vdc to 54 Vdc.
- Output Current: 400 mA to 700 mA.
- Efficiency: Up to 87%.
- Warranty: 5 years.

Special Features

- Constant current without stroboscopic.
- A rated lifetime of 50,000 hours @ Tc = 75 °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.
- Accord to RoHS Standard.
- IP20, Compliant for Dry, Damp.
- Meet Class I and Class II lighting fixtures.
- Programmed controlled aging at Ta = 50 °C.

Main Electrical Specification

Part Number	Output Power	Output Voltage	Maximum Output Constant Current	Current Accuracy	Max.Eff
PXD38W-54-C0700-F	37.8W	27-54Vdc	700mA	±7.5%	87%

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	---	---	450uA	Measured at 230Vac / 60Hz Input, Output Full Load.

THD	---	---	20%	Measured at 230Vac Input, Output Full Load.
Power Factor (PF)	0.65C	---	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	-7.5%	700mA	+7.5%	Pin1-ON, Pin2-ON.
		600mA		Pin1-OFF, Pin2-ON.
		500mA		Pin1-ON, Pin2-OFF.
		400mA		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%	Measured at 230Vac /50Hz Input time measurement.
Load Regulation	-5%	---	+5%	Measured at 230Vac / 50Hz Input time measurement.
Start-up Time	---	100ms	500ms	Measured at 230Vac / 50Hz Input time measurement.
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=75°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	---	+75°C	Measured at location specified on case.
Storage Temperature (Ts)	-25°C	---	+85°C	Non-operating temperature range.
Operating Humidity	5% RH	---	85% 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).

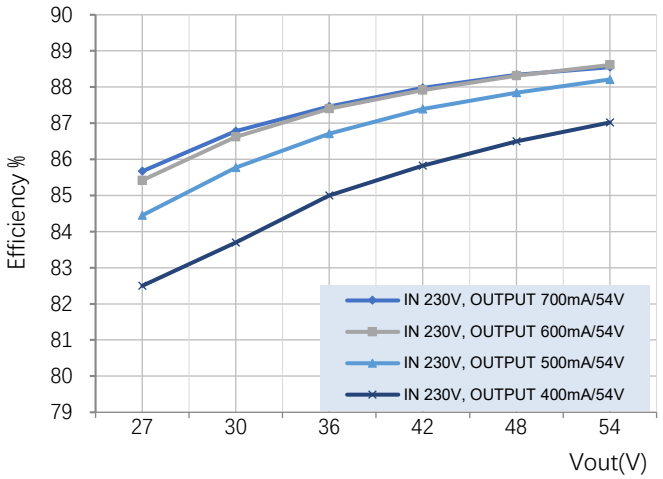
EMC Compliance

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

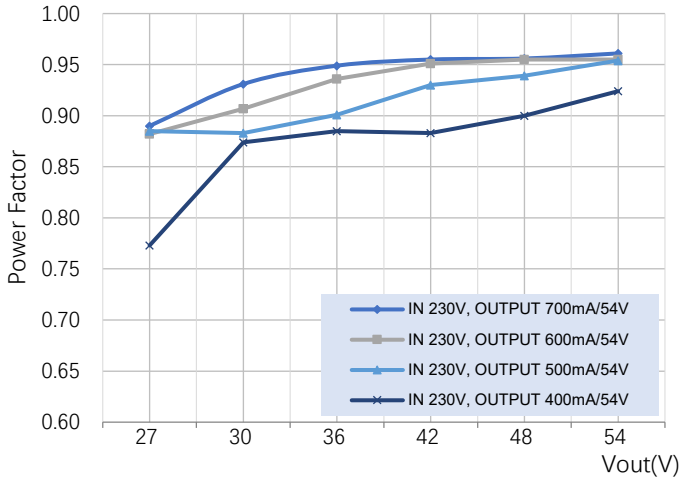
Note: The above test data are in the condition of 25℃ ambient temperature, except for the marked temperature.

Characteristic Curve

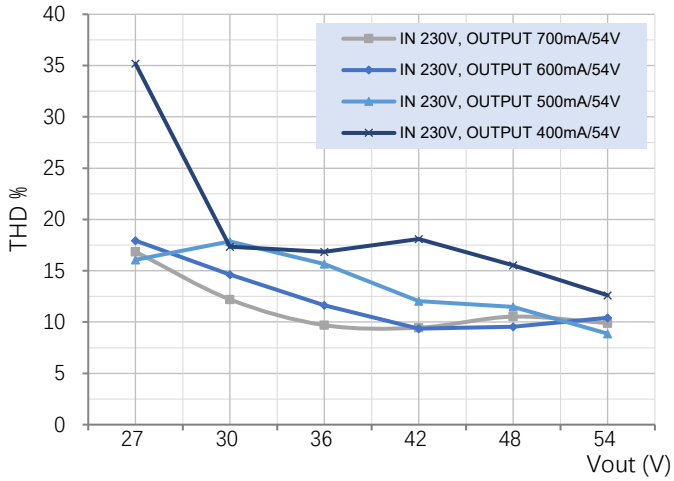
Typical Efficiency vs Vout at 25℃ Ambient



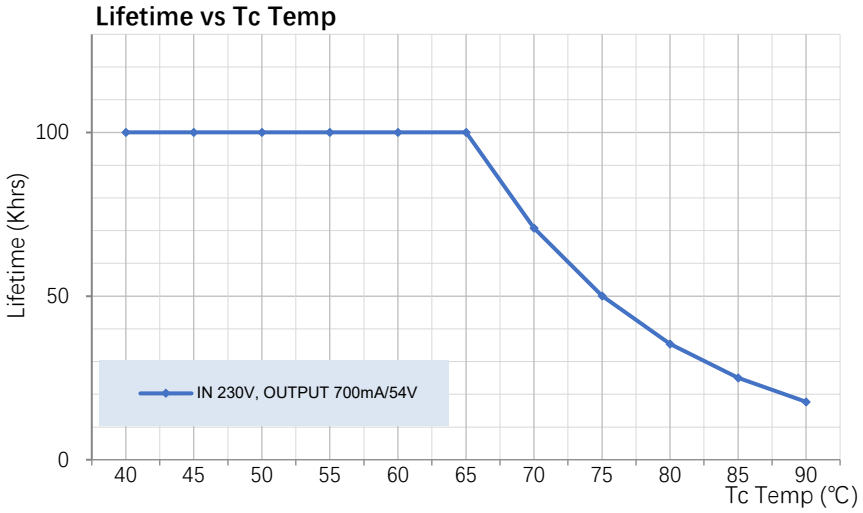
Typical PF vs Vout at 25℃ Ambient Temp



Typical THD vs Vout at 25℃ Ambient Temp



Lifetime Curve



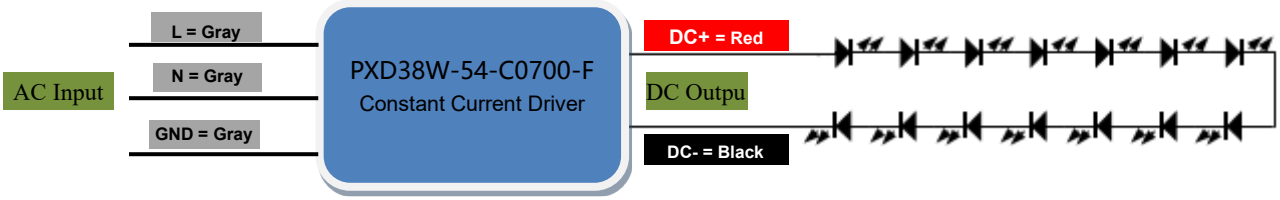
Installation

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

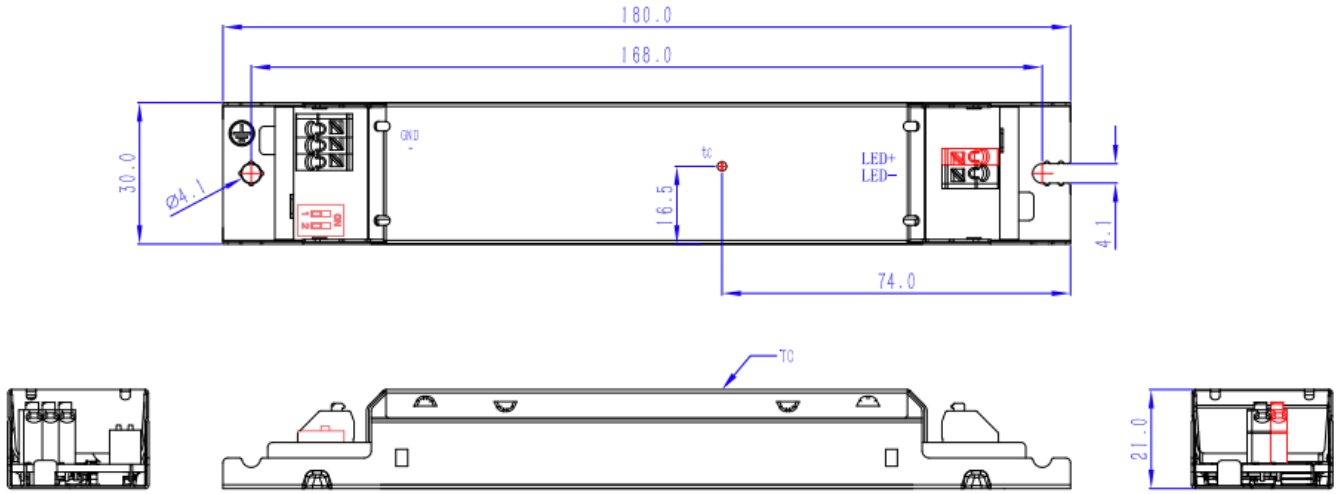


Order ID

P/N: PXD38W-54-C0700-F

Description：37.8W，Maximum 54Vdc, constant current 700mA 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.