

# PRODUCT SPECIFICATION

Product Model: 75 Watt —PXD75W

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 °C. | 2023-05-12 |

PXD75W Series driver is a high performance LED driver power supply, using constant current output control, Safe isolation, lowest output ripple.

### 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: 75.6 Watt Max.
- Output Voltage: 27 Vdc to 54 Vdc
- Output Current: 1100 mA to 1400 mA
- Efficiency: Up to 89%
- Warranty: 5 years.

### Special Features

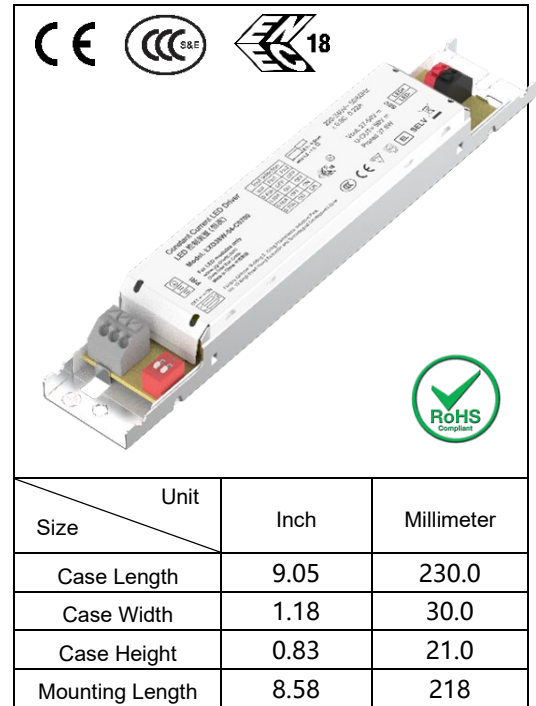
- Constant current with Flicker-Free.
- A rated lifetime of 50,000 hours @ Tc = 85 °C
- Primary side and secondary side are isolated safely, AC input DC output.
- Surge: line to line 1KV/2Ω 8/20 us, line to earth 2KV/12Ω 8/20us.
- Metal shell. Accord to RoHS Standard.
- IP20, Compliant for Dry, Damp.
- 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 |
|-------------------|----------------------|----------------|---------------------------------|------------------|---------|
| PXD75W-54-C1400-F | 75.6W                | 27-54Vdc       | 1400mA                          | ±5%              | 89%     |

### 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             | ---    | ---        | 0.4A   | Measured at 230Vac / 50Hz Input, Output Full Load. |
| No-load power consumption    | ---    | ---        | 0.5W   | Unloaded time.                                     |
| Startup surge current (Peak) | ---    | 55A/ 350uS | ---    | 50% Ipeak& 240Vac / 50Hz Input, Output Full Load.  |
| Leakage Current              | ---    | ---        | 2.2mA  | Measured at 230Vac / 60Hz Input, Output Full Load. |



| Size            | Unit        | Inch | Millimeter |
|-----------------|-------------|------|------------|
|                 | Case Length |      | 9.05       |
| Case Width      |             | 1.18 | 30.0       |
| Case Height     |             | 0.83 | 21.0       |
| Mounting Length |             | 8.58 | 218        |

|                   |      |     |     |   |
|-------------------|------|-----|-----|---|
| 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%              | 1400mA    | +5%       | Pin1-ON, Pin2-ON.   |
|                         |                  | 1300mA    |           | Pin1-OFF, Pin2-ON.  |
|                         |                  | 1200mA    |           | Pin1-ON, Pin2-OFF.  |
|                         |                  | 1100mA    |           | 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<br>Ripple Index is defined as $[(Y_{max}-Y_{min})/Y_{avg}]/2 * 100\%$ . 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           | ---              | 80ms      | 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       | Natural cooling |   |
| 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=85°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 | ---  | +85°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 |

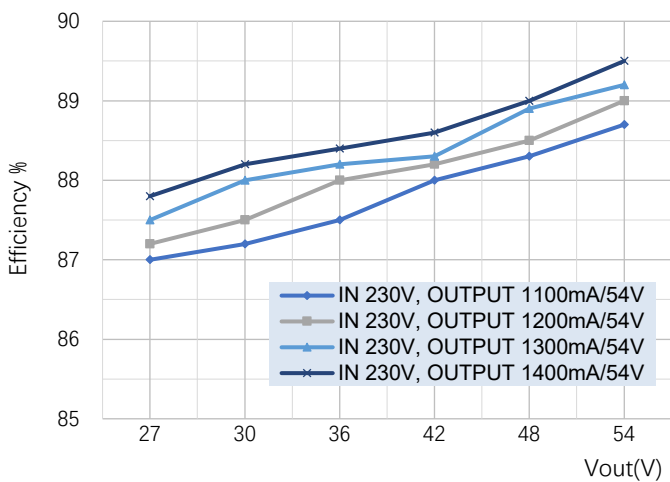
  

| EMI Category | Standards   |
|--------------|---|
| EN 61000-4-3 | Radio-Frequency Electromagnetic Field Susceptibility Test-RS  |
| EN 61000-4-4 | Electrical Fast Transient / Burst-EFT   |
| EN 61000-4-5 | Surge Immunity Test: AC Power Line: line to line 1.0 KV/2Ω 8/20 us, line to earth (PE) 2.0 KV/12Ω 8/20 us |
| EN 61000-4-6 | Conducted Radio Frequency Disturbances Test-CS  |
| EN 61547     | Electromagnetic Immunity Requirements Applies to Lighting Equipment                                       |

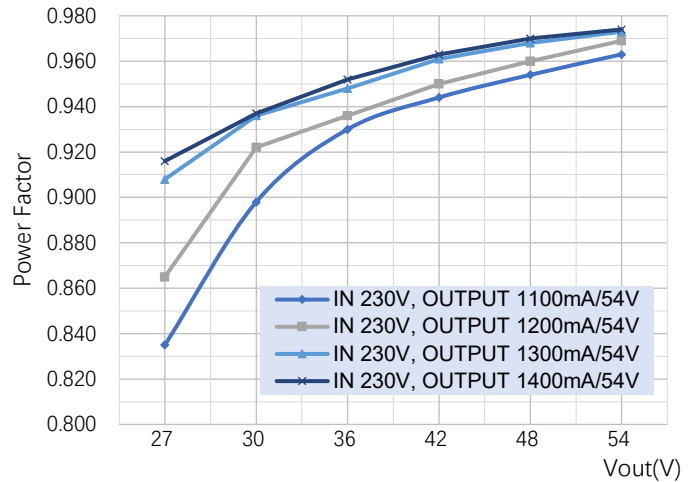
Note: The above test data are in the condition of 25°C ambient temperature, except for the marked temperature.

## Characteristic Curve

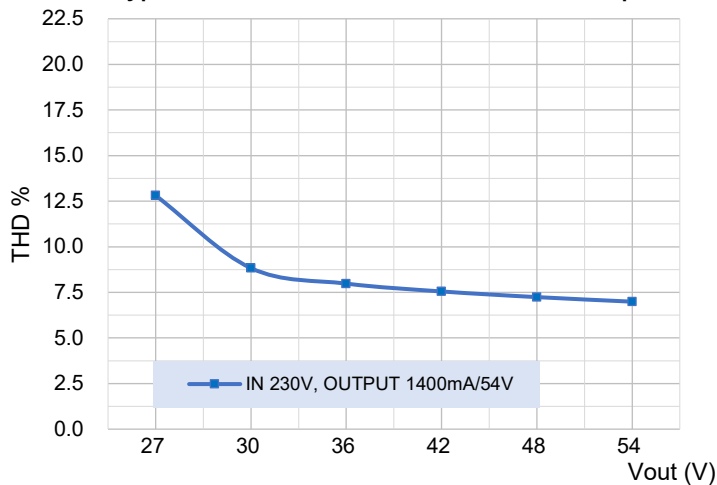
Typical Efficiency vs Vout at 25°C Ambient



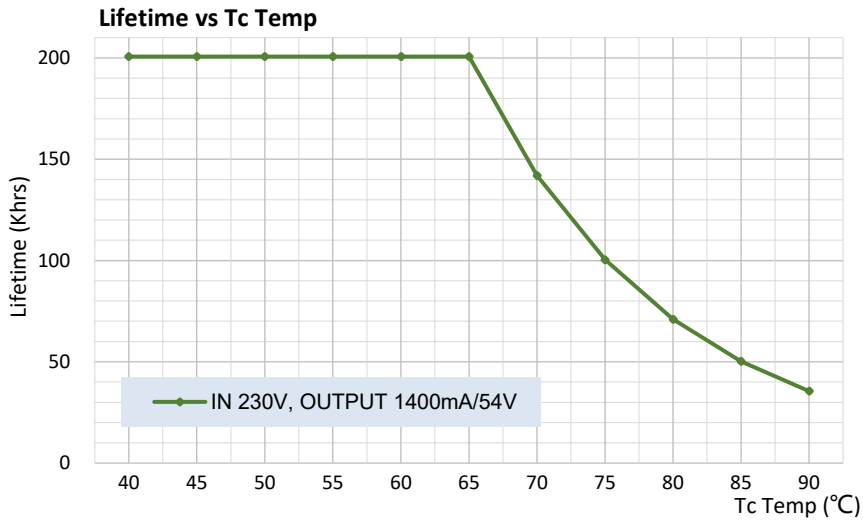
Typical PF vs Vout at 25°C Ambient Temp



Typical THD vs Vout at 25°C Ambient Temp



## Lifetime Curve



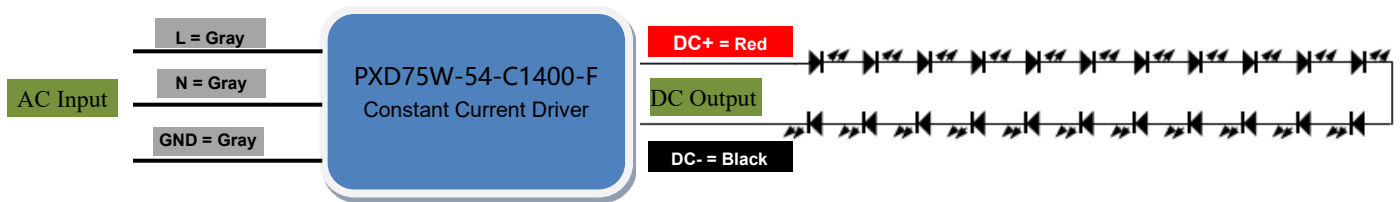
## Installation

AC input wires cross section : 0.75-1.5<sup>2</sup>

DC output wires cross section : 0.50-1.5<sup>2</sup>

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

## Typical Applications

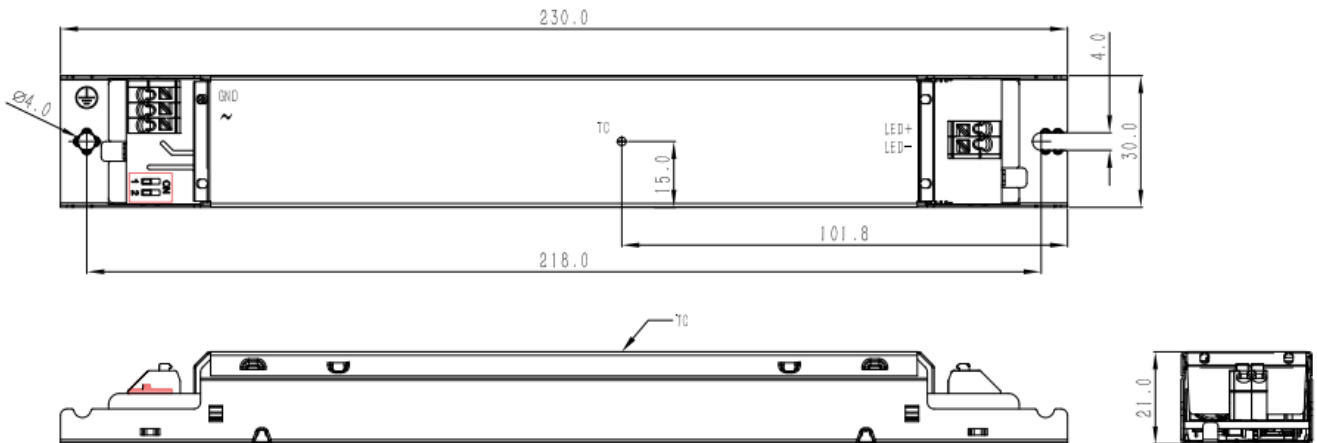


## Order ID

P/N: PXD75W-54-C1400-F

Description: 75.6W, Maximum 54Vdc, constant current 1400mA 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.