

## Datasheet

# Xitanium non-isolated Fixed Output

Xitanium 60W 0.08-0.35A 220V 16 230V  
9290 015 57806



### **Xitanium non-isolated Fixed Output drivers stand on three pillars: quality of light, reliability and flexibility**

By using Xitanium LED drivers in your luminaires, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects.

The reliability of your complete lighting system is enhanced as our drivers offer specific features that protect the connected LED module, including reduced ripple current.

Finally, application-oriented operating windows offer the flexibility required to provide the stable lumen output and light quality levels that lighting specifiers and architects demand.

### **Benefits**

- High quality of light
- High reliability
- Future-proof flexibility

### **Application**

- Offices
- Industry
- Retail: supermarkets, shopping malls

### **Features**

- High efficiency
- Wide operating windows - output current can be adjusted via SimpleSet (NFC) or LEDset (resistor)
- Low output ripple current

Logistical data

| Specification item | Value                                |
|--------------------|--------------------------------------|
| Product name       | Xitanium 60W 0.08-0.35A 220V 16 230V |
| EOC                | 871869670597100                      |
| Logistic code 12NC | 9290 015 57806                       |
| EAN1 (GTIN)        | 8718696705971                        |
| EAN3 (box)         | 8718696705964                        |
| Pieces per box     | 24                                   |
| Weight             | 164 gram                             |

Electrical input data

| Specification item             | Value     | Unit            | Condition                                                                            |
|--------------------------------|-----------|-----------------|--------------------------------------------------------------------------------------|
| Rated input voltage range      | 220...240 | V <sub>ac</sub> | Performance range                                                                    |
| Rated input voltage            | 230       | V <sub>ac</sub> |                                                                                      |
| Rated input frequency          | 50...60   | Hz              | Performance range                                                                    |
| Rated input current            | 0.3       | A               | @ max output power @ rated input voltage                                             |
| Rated input power              | 66.0      | W               | @ max output power @ rated input voltage                                             |
| Power factor performance range | ≥ 0.90 C  |                 | @ rated output power @ rated input voltage@ rated output power @ rated input voltage |
| Total harmonic distortion      | 20        | %               | @ rated output power @ rated input voltage                                           |
| Efficiency                     | 92.2      | %               | @ max output power @ rated input voltage @ max. U <sub>out</sub>                     |
| Rated input voltage DC         | 186...250 | V <sub>dc</sub> | Performance range                                                                    |
| Rated input current DC         | ≤ 0.3     | A <sub>dc</sub> | Performance range                                                                    |
| Input voltage AC               | 198...264 | V <sub>ac</sub> | Operational range                                                                    |
| Input frequency AC             | 45...66   | Hz              | Operational range                                                                    |
| Input voltage DC               | 168...275 | V <sub>dc</sub> | Operational range                                                                    |
| Isolation input to output      | No        |                 |                                                                                      |

Electrical output data

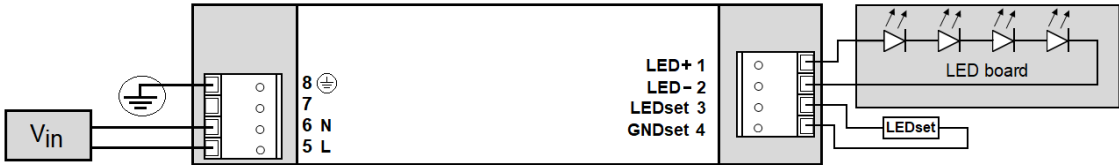
| Specification item                   | Value            | Unit            | Condition                        |
|--------------------------------------|------------------|-----------------|----------------------------------|
| Regulation method                    | Constant Current |                 |                                  |
| Output voltage                       | 50...220         | V <sub>dc</sub> |                                  |
| Output voltage max.                  | 250              | V               | Maximum output voltage (rms)     |
| Output current                       | 80...350         | mA              |                                  |
| Output current tolerance ±           | 5                | %               | @full load                       |
| Output current ripple LF             | ≤ 4              | %               | Ripple = peak / average, < 3kHz  |
| Output current ripple HF             | ≤ 4              | %               |                                  |
| Output P <sub>st</sub> <sup>LM</sup> | ≤ 0.1            |                 |                                  |
| Output SVM                           | ≤ 0.3            |                 |                                  |
| Output power                         | 4.0...60.0       | W               |                                  |
| Minimum performance output power     | 17               | W               | Power factor > 0.9 and THD < 20% |

Control interfaces

| Specification item | Value | Unit | Condition |
|--------------------|-------|------|-----------|
| Control method     | Fixed |      |           |

Wiring and Connections

| Specification item        | Value               | Unit                  | Type                                                                                                                      |
|---------------------------|---------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------|
| Input wire cross-section  | 0.5...1.5 / 20...16 | mm <sup>2</sup> / AWG | WAGO744, solid wire                                                                                                       |
| Input wire strip length   | 8...9               | mm                    |                                                                                                                           |
| Output wire cross-section | 0.5...1.5 / 20...16 | mm <sup>2</sup> / AWG | WAGO744, solid wire                                                                                                       |
| Output wire strip length  | 8...9               | mm                    |                                                                                                                           |
| Maximum cable length      | 2                   | m                     | Total length of wiring including LED module, one way.<br>For longer wiring please double check EMI behavior of luminaire. |

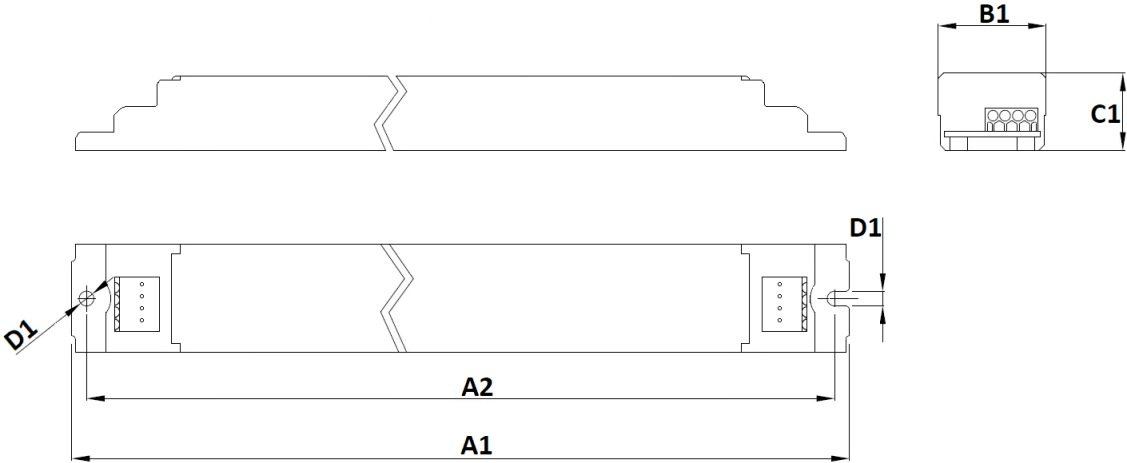


Isolation

| Insulation per IEC61347-1 | Input | Output+LEDset | Housing |
|---------------------------|-------|---------------|---------|
| Input                     | -     | No            | Basic   |
| Output+LEDset             | No    | -             | Basic   |
| Housing                   | Basic | Basic         | -       |

Dimensions and weight

| Specification item          | Value | Unit | Tolerance (mm) |
|-----------------------------|-------|------|----------------|
| Length (A1)                 | 280   | mm   |                |
| Mounting hole distance (A2) | 270   | mm   |                |
| Width (B1)                  | 30    | mm   |                |
| Height (C1)                 | 16    | mm   |                |
| Mounting hole diameter (D1) | 4.1   | mm   |                |
| Weight                      | 164   | gram |                |

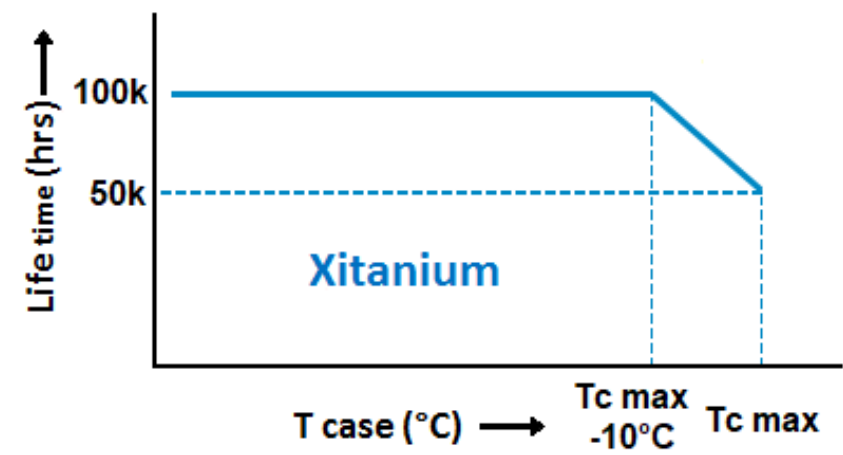


Operational temperatures and humidity

| Specification item          | Value     | Unit | Condition                                                               |
|-----------------------------|-----------|------|-------------------------------------------------------------------------|
| Ambient temperature         | -25...+50 | °C   | Higher ambient temperature allowed as long as Tcase-max is not exceeded |
| Tcase-max                   | 75        | °C   | Maximum temperature measured at T <sub>case</sub> -point                |
| Tcase-life                  | 65        | °C   | lifetime 100khrs; measured at T <sub>c</sub> -point                     |
| Maximum housing temperature | 110       | °C   | In case of a failure, inherent by design                                |
| Relative humidity           | 10...90   | %    | Non-condensing                                                          |

Lifetime

| Specification item     | Value     | Unit     | Condition                                                                    |
|------------------------|-----------|----------|------------------------------------------------------------------------------|
| Driver lifetime        | 100,000   | hours    | Measured temperature at Tcase-point is Tcase-life.<br>Maximum failures = 10% |
| Driver lifetime Tcmax  | 0         | hours    | Measured temperature at Tcase-point is Tcase-life.<br>Maximum failures = 10% |
| Mains switching cycles | > 100,000 | switches | See Design-in guide for detailed explanation                                 |



Maximum failures = 10%

| Temperature [°C] | Lifetime | Unit | Condition                      |
|------------------|----------|------|--------------------------------|
| 75               | 50000    | hr   | Temperature measured @Tc point |
| 70               | 71000    | hr   |                                |
| 65               | 100000   | hr   |                                |
| 60               | >100000  | hr   |                                |
| 55               | >100000  | hr   |                                |

Storage temperature and humidity

| Specification item  | Value     | Unit | Condition      |
|---------------------|-----------|------|----------------|
| Ambient temperature | -40...+85 | °C   | Non-condensing |
| Relative humidity   | 5...95    | %    |                |

Programmable features

| Specification item                  | Available | Default setting | Condition                                                                                                           |
|-------------------------------------|-----------|-----------------|---------------------------------------------------------------------------------------------------------------------|
| Set Adjustable Output Current (AOC) | LEDset    | 80 mA           | Set the output current via LEDset, do not leave open / short-circuit. See Design-In Guide for resistor value table. |
| Constant Light Output (CLO)         | No        |                 |                                                                                                                     |
| Corridor Mode                       | No        |                 |                                                                                                                     |
| DC emergency (DCemDim)              | No        |                 |                                                                                                                     |

## Non-programmable features

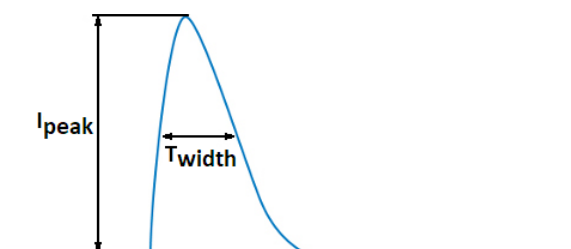
| Specification item                          | Value | Condition            |
|---------------------------------------------|-------|----------------------|
| Open load protection                        | Yes   | Automatic recovering |
| Short circuit protection                    | Yes   | Automatic recovering |
| Over power protection                       | Yes   | Automatic recovering |
| Hot wiring                                  | No    |                      |
| Suitable for fixtures with protection class | I     | per IEC60598         |
| Energy metering (DALI part 252)             | No    |                      |
| Diagnostics via Signify tool                | No    |                      |

## Inrush current

| Specification item                | Value | Unit | Condition                                  |
|-----------------------------------|-------|------|--------------------------------------------|
| Inrush current                    | 18.1  | A    | Input voltage 230V                         |
| Inrush peak width                 | 256   | μs   | Input voltage 230V, measured at 50% height |
| Drivers / MCB 16A type B @230V AC | ≤ 26  | pcs  | Input voltage 230V                         |

Please refer to the driver design in guide if you use other MCB-types.

If several mini circuit breakers are used directly side-by-side (without distance piece) a correction factor of 80% has to be applied to the rated current



## Driver touch current / protective conductor current / earth leakage current

| Specification item                                  | Value | Unit   | Condition                                             |
|-----------------------------------------------------|-------|--------|-------------------------------------------------------|
| Typical Protective Conductor Current (ins. Class I) | 0.5   | mA rms | Acc. IEC60598-1. LED module contribution not included |

## Surge immunity

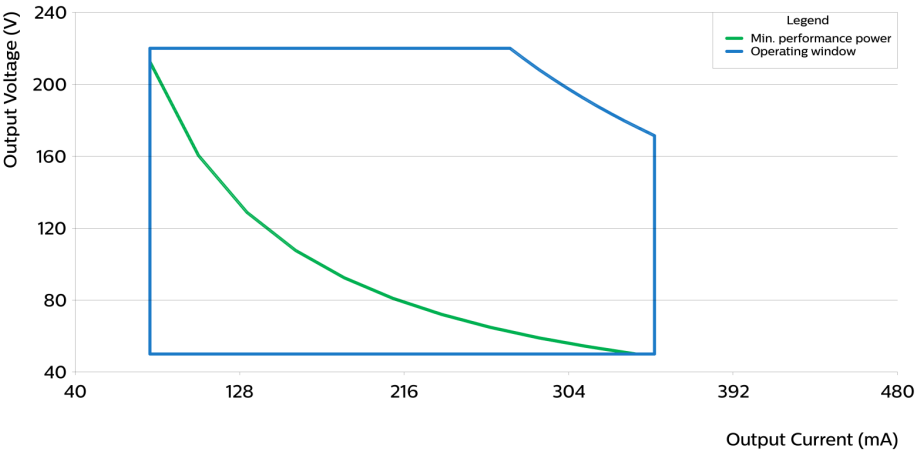
| Specification item                | Value | Unit | Condition                                   |
|-----------------------------------|-------|------|---------------------------------------------|
| Mains surge immunity (diff. mode) | 1     | kV   | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us  |
| Mains surge immunity (comm. mode) | 2     | kV   | Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us |

Application Info (Approbation)

| Specification item                     | Value                |
|----------------------------------------|----------------------|
| Approval marks and Certifications      | CCC / CE / EL / ENEC |
| Ingress Protection classification (IP) | 20                   |
| Application                            | Indoor Linear        |
| Mounting Type                          | Built-in             |

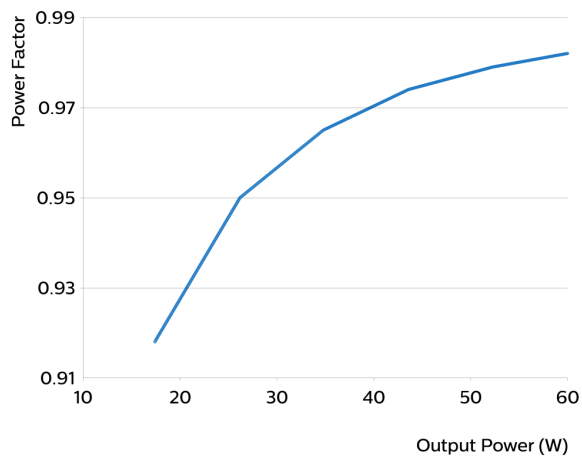
Graphs

Operating window

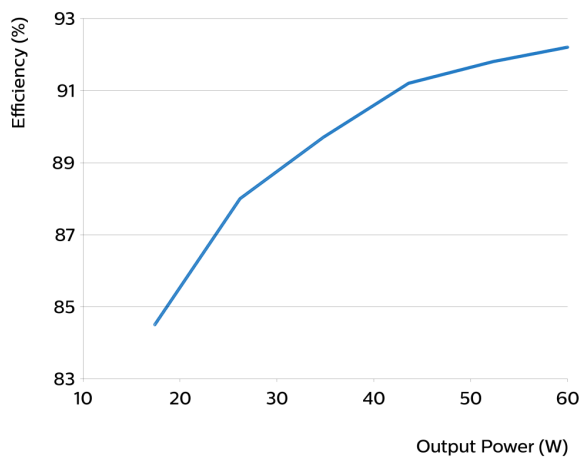


| Type                                 | Output current (mA) | Min. output voltage (V) | Max. output voltage (V) | Max. output power (W) |
|--------------------------------------|---------------------|-------------------------|-------------------------|-----------------------|
| Xitanium 60W 0.08-0.35A 220V 16 230V | 80                  | 50                      | 220                     | 17.6                  |
| Xitanium 60W 0.08-0.35A 220V 16 230V | 130                 | 50                      | 220                     | 28.6                  |
| Xitanium 60W 0.08-0.35A 220V 16 230V | 180                 | 50                      | 220                     | 39.6                  |
| Xitanium 60W 0.08-0.35A 220V 16 230V | 230                 | 50                      | 220                     | 50.6                  |
| Xitanium 60W 0.08-0.35A 220V 16 230V | 280                 | 50                      | 214                     | 60                    |
| Xitanium 60W 0.08-0.35A 220V 16 230V | 350                 | 50                      | 171                     | 60                    |

## Power factor versus output power



## Efficiency versus output power



## THD versus output power

