PHILIPS

Xitanium

LED driver

Datasheet

# Xitanium non-isolated Dip Switch

## Xitanium 65W 200-350mA 185V DS 230V AW

### 9290 039 53601

Xitanium LED drivers with single current output offer industry leading performance and reliability at optimized cost. They are ideal for high volume applications while delivering to specific requirements. These drivers offer the same level of performance as Xitanium adjustable current linear drivers to ensure high quality of light, but with a specific current setting for optimized performance. Due to the low output current ripple, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects.

**Features**

- Low output current tolerance
- Low output current ripple
- Flexible current setting (4 output currents - dipswitch)
- Suitable for Class I luminaires

**Benefits**

- High quality of light
- High reliability
- Optimized performance at specific output current settings

**Application**

- Offices
- Retail: supermarkets, shopping malls

February 2025

## Logistical data

| Specification item | Value |
|---|---|
| Product name | Xitanium 65W 200-350mA 185V DS 230V AW |
| EOC | 872110307258000 |
| Logistic code 12NC | 9290 039 53601 |
| EAN1 (GTIN) | 8721103072580 |
| EAN3 (box) | 8721103072597 |
| Pieces per box | 20 |
| Weight | 140 gram |

## Electrical input data

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Rated input voltage range | 220…240 | $V_{ac}$ | Performance range |
| Rated input voltage | 230 | $V_{ac}$ | |
| Rated input frequency | 50…60 | Hz | Performance range |
| Rated input current | 0.33 | A | @ rated output power @ rated input voltage |
| Rated input power | 71.0 | W | @ rated output power @ rated input voltage |
| Power factor performance range | 0.95 | | @ rated output power @ rated input voltage |
| Total harmonic distortion | 20 | % | @ rated output power @ rated input voltage |
| Efficiency | 92.0 | % | typical value @ 230V, full output power |
| Rated input voltage DC | 186…250 | $V_{dc}$ | Performance range |
| Rated input current DC | 0.17…0.39 | $A_{dc}$ | Performance range |
| Input voltage AC | 198…264 | $V_{ac}$ | Operational range |
| Input frequency AC | 45…66 | Hz | Operational range |
| Input voltage DC | 168…275 | $V_{dc}$ | Operational range |
| Isolation input to output | No | | |

## Electrical output data

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Regulation method | Constant Current | | |
| Output voltage | 120…185 | $V_{dc}$ | |
| Output voltage max. | 250 | V | Maximum output voltage (rms) |
| Output current | 200 / 250 / 300 / 350 | mA | Select output current via the dipswitch (EOFi=0.95) |
| Output current tolerance ± | 8 | % | @full load |
| Output current ripple LF | ≤ 4 | % | Ripple = peak / average, < 3kHz. Rd≥0.48ohm /3V/0.2A |
| Output current ripple HF | ≤ 15 | % | |
| Output $P_{st}^{LM}$ | ≤ 0.1 | | cfr. IEC TR 61547-1:2017 |
| Output SVM | ≤ 0.3 | | cfr. IEC TR 63518:2018 |
| Output power | 24.0…64.7 | W | |
| Rated output power | 64.7 | W | |

## Control interfaces

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Control method | Fixed | | Select output current via the dipswitches |

## Wiring and Connections

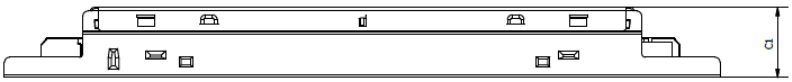
| Specification item | Value | Unit | Type |
|---|---|---|---|
| Input wire cross-section | 0.5…1.5 / 20…16 | $mm^2$ / AWG | WAGO744, solid wire |
| Input wire strip length | 8…9 | mm | |
| Output wire cross-section | 0.5…1.5 / 20…16 | $mm^2$ / AWG | WAGO744, solid wire |
| Output wire strip length | 8…9 | mm | |
| Maximum cable length | 2 | m | Total length of wiring including LED module, one way |

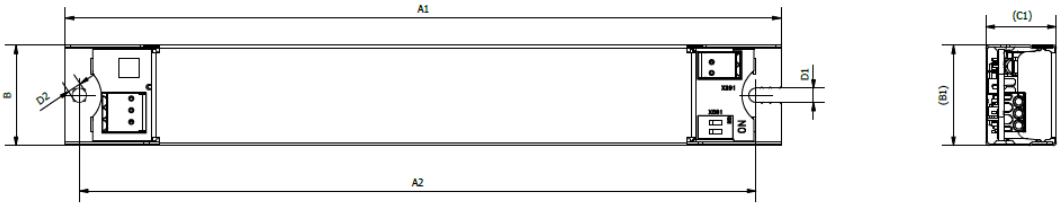

## Isolation

| Insulation per IEC61347-1 | Input | Output | Housing |
|---|---|---|---|
| Input | - | Non | Basic |
| Output | Non | - | Basic |
| Housing | Basic | Basic | - |

## Dimensions and weight

| Specification item | Value | Unit | Tolerance (mm) |
|---|---|---|---|
| Length (A1) | 210 | mm | |
| Mounting hole distance (A2) | 198.5 | mm | |
| Width (B1) | 30 | mm | |
| Height (C1) | 21 | mm | |
| Mounting hole diameter (D1) | 4.1 | mm | |
| Mounting hole diameter (D2) | 4.1 | mm | |
| Weight | 140 | gram | |
| Housing color | White | | |



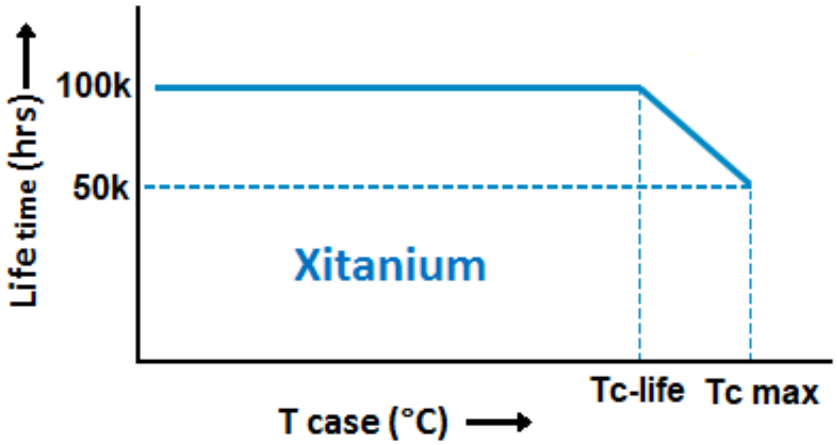




## Operational temperatures and humidity

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Ambient temperature | -20…+50 | °C | Higher ambient temperature allowed as long as Tcase-max is not exceeded |
| Tcase-max | 85 | °C | Maximum temperature measured at $T_{case}$-point |
| Tcase-life | 75 | °C | Measured at $T_{case}$-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. Maximum failures = 10% |




Maximum failures = 10%

| Temperature [°C] | Lifetime | Unit | Condition |
|---|---|---|---|
| 85 | 50000 | hr | |
| 80 | 71000 | hr | |
| 75 | 100000 | hr | Temperature measured @Tc point |
| 70 | >100000 | hr | |
| 65 | >100000 | hr | |

## Storage temperature and humidity

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Ambient temperature | -25…+85 | °C | |
| Relative humidity | 5…95 | % | Non-condensing |

## Programmable features

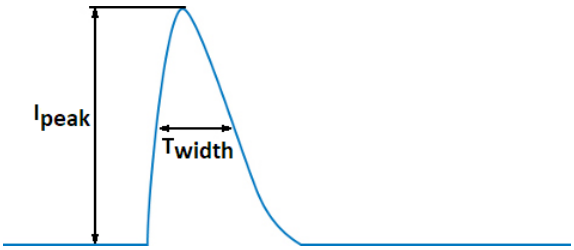
| Specification item | Available | Default setting | Condition |
|---|---|---|---|
| Set Adjustable Output Current (AOC) | DipSwitch | 350 mA | Manual set the output current via the dipswitches, see wiring diagram for an overview |

## 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 |

## Inrush current

| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Inrush current | 17.2 | A | Input voltage 230V |
| Inrush peak width | 172 | µs | Input voltage 230V, measured at 50% height |
| Drivers / MCB 16A type B @230V AC | ≤ 36 | 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 pieces) 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

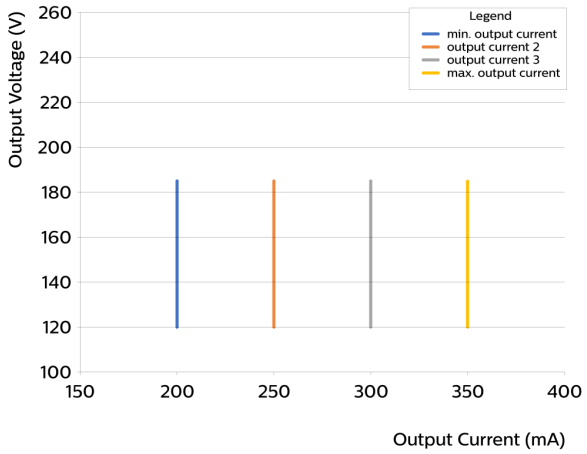
| Specification item | Value | Unit | Condition |
|---|---|---|---|
| Mains surge immunity (diff. mode) | 1 | kV | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us |
| Mains surge immunity (comm. mode) | 2 | kV | Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us |

## Application Info (Approbation)

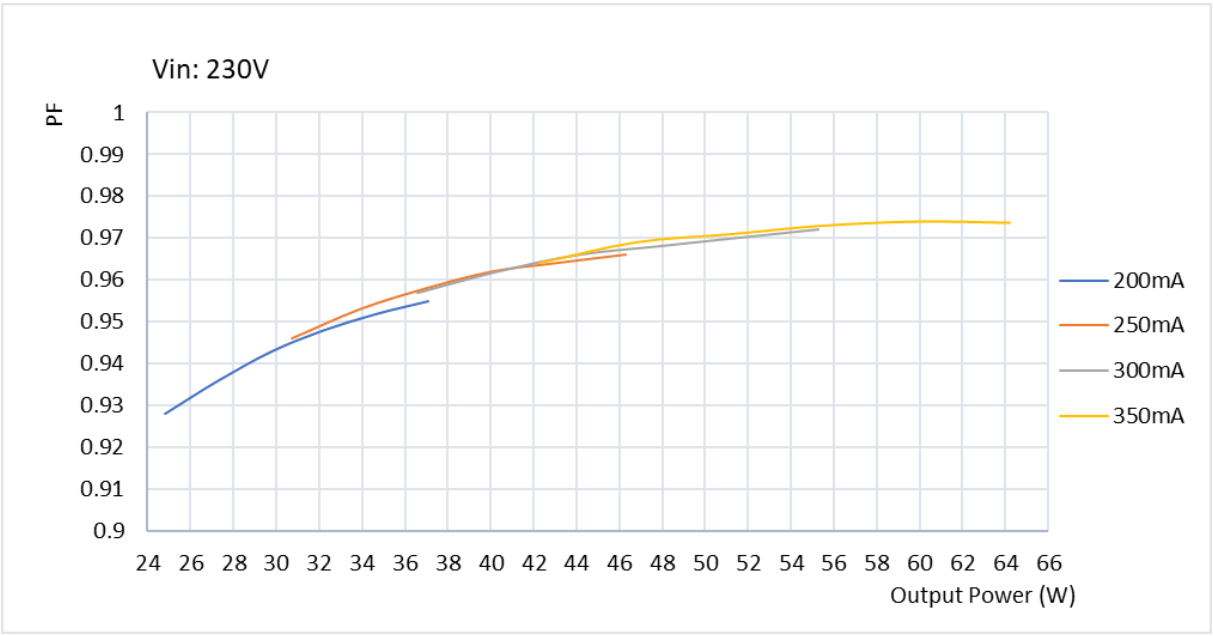
| Specification item | Value |
|---|---|
| Approval marks and Certifications | CCC / CE / EAC / EL / ENEC / RCM / UA / UKCA |
| Ingress Protection classification (IP) | 20 |
| Application | Indoor Linear |
| Mounting Type | Built-in |

## Graphs

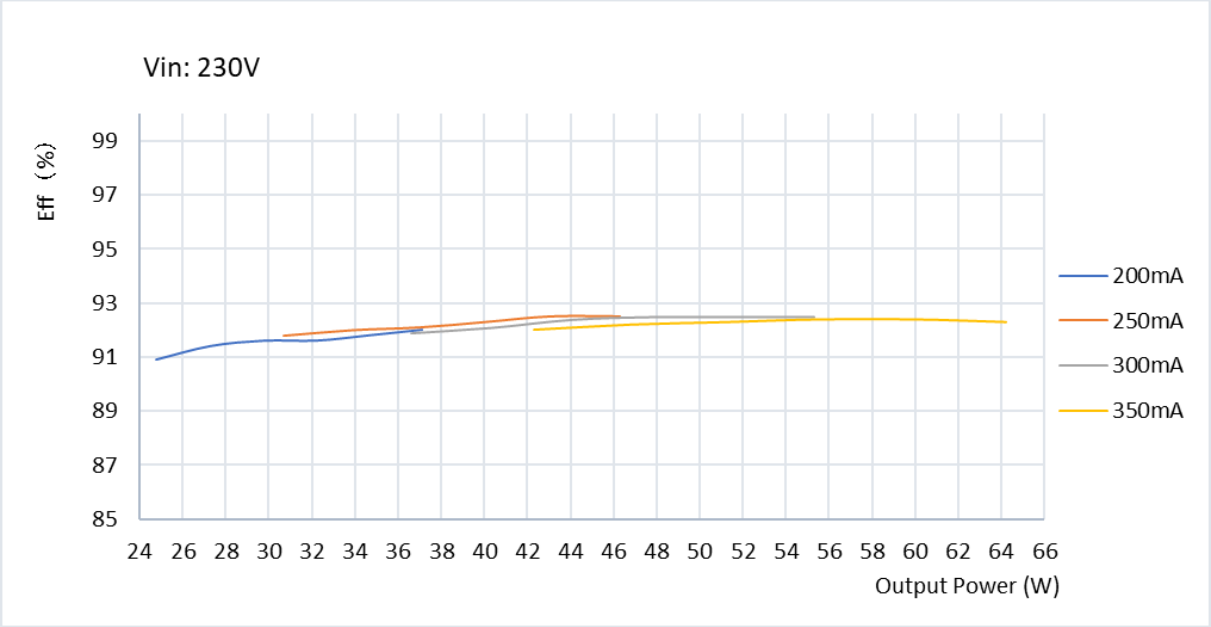
### Operating window



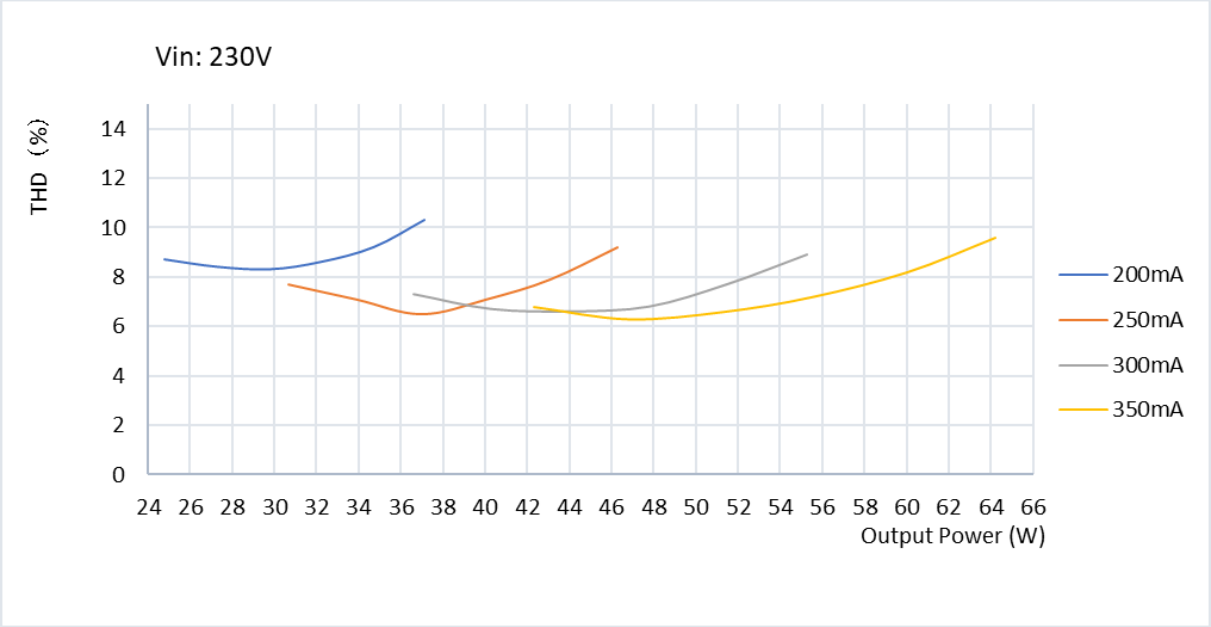

### Power factor versus output power



## Efficiency versus output power




## THD versus output power





Date of release: February 24, 2025 v2

www.philips.com/oem