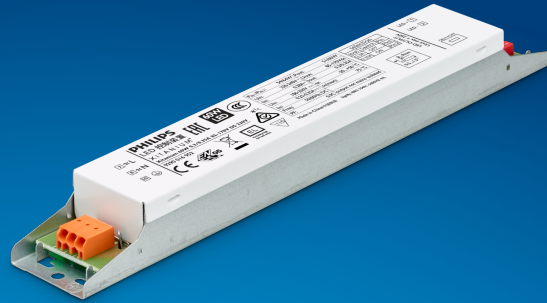


PHILIPS

Xitanium

LED driver



Datasheet

Xitanium non-isolated Single Current (Dipswitch)

Xitanium 30W 0.2/0.25A 60-120V DS 230V

9290 016 95006

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.

Benefits

- High quality of light -assurance of camera and scanner-friendly performance
- High reliability
- Optimized performance at specific output current settings

Features

- Low output current tolerance
- Low output ripple current
- Long lifetime at high operating temperature
- Easy current selection via dipswitch
- Suitable for Class I luminaires

Application

- Offices
- Retail: supermarkets, shopping malls

Electrical input data

| Specification item | Value | Value | Unit | Condition |
|------------------------------|-----------|-------|-----------------|--|
| Rated input voltage range | 220...240 | | V _{ac} | Performance range |
| Rated input voltage | 230 | | V _{ac} | |
| Rated input frequency range | 50...60 | | Hz | Performance range |
| Rated input current | 0.15 | | A | @ rated output power @ rated input voltage |
| Rated input power | 27 | 34 | W | @ maximum rated output power @ rated input voltage |
| Power factor | 0.97 | | | @ maximum output power @ rated input voltage |
| Total harmonic distortion | 10 | | % | @ maximum output power @ rated input voltage |
| Efficiency | 91.7 | | % | @ 230V input, full load @ max. U _{out} |
| Rated input voltage DC range | 186...250 | | V _{dc} | Performance range |
| Input voltage AC range | 198...264 | | V _{ac} | Safety operational range |
| Input frequency AC range | 45...66 | | Hz | Safety operational range |
| Input voltage DC range | 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 | 60...120 | V _{dc} | |
| Output voltage max. | 200 | V | Maximum output voltage (rms) |
| Output current | 0.2 / 0.25 | A | Select current 200mA (OFF) or 250mA (ON) via dipswitch |
| Output current tolerance ± | 7 | % | |
| Output current ripple LF | ≤ 4 | % | Ripple = peak / average, < 3kHz |
| Output P _{st} ^{LM} | ≤ 0.01 | | |
| Output SVM | ≤ 0.07 | | |
| Output power | 12...30 | W | |

Electrical data controls input

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

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 |

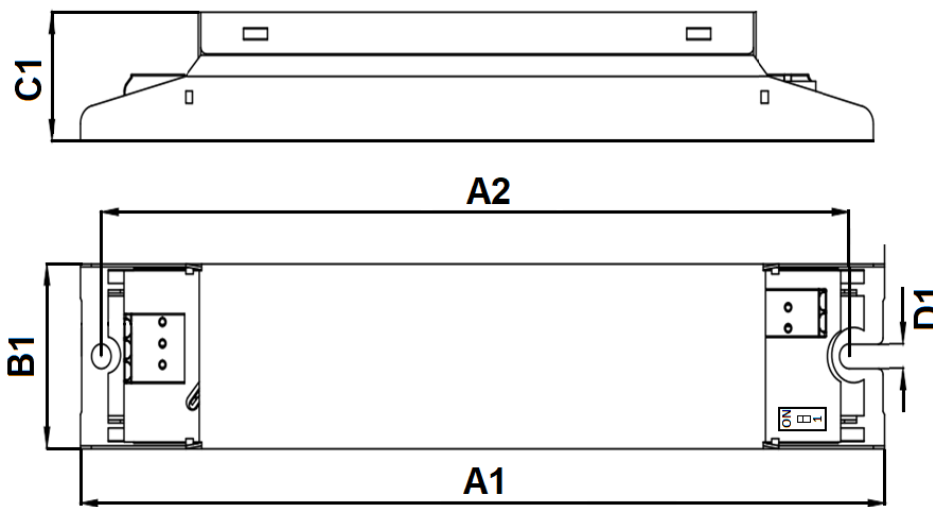


Insulation

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

Dimensions and weight

| Specification item | Value | Unit | Tolerance (mm) |
|-----------------------------|-------|------|----------------|
| Length (A1) | 168 | mm | |
| Mounting hole distance (A2) | 156 | mm | |
| Width (B1) | 30.2 | mm | |
| Height (C1) | 21 | mm | |
| Mounting hole diameter (D1) | 4 | mm | |
| Weight | 115 | gram | |



Logistical data

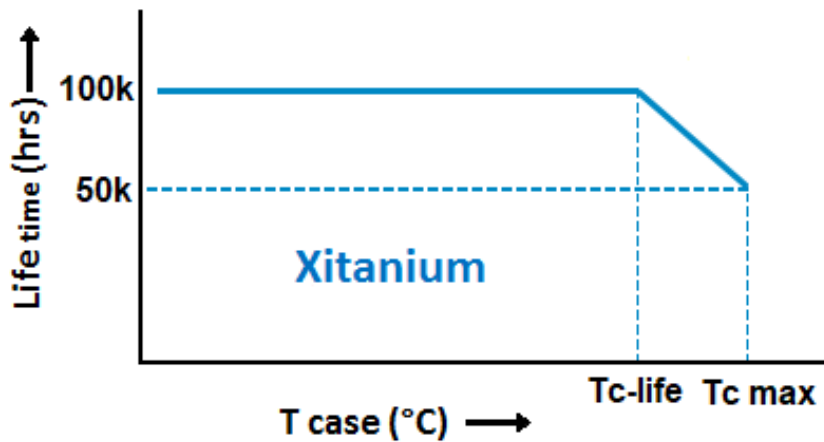
| Specification item | Value |
|--------------------|--|
| Product name | Xitanium 30W 0.2/0.25A 60-120V DS 230V |
| EOC | 871951426388800 |
| Logistic code 12NC | 9290 016 95006 |
| EAN1 (GTIN) | 8719514263888 |
| EAN3 (box) | 8719514263895 |
| Pieces per box | 50 |

Operational temperatures and humidity

| Specification item | Value | Unit | Condition |
|-----------------------------|-----------|------|---|
| Ambient temperature | -25...+50 | °C | Higher ambient temperature allowed as long as T _{case-max} is not exceeded |
| T _{case-max} | 75 | °C | Lifetime 50khrs; |
| T _{case-life} | 65 | °C | Lifetime 100khrs; measured at T _c -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% |



Storage temperature and humidity

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

Programmable features

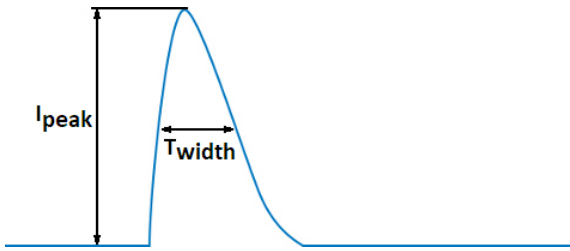
| Specification item | Available | Default setting | Condition |
|-------------------------------------|-----------|-----------------|--|
| Set Adjustable Output Current (AOC) | DipSwitch | 200 mA | Manual set the output current via the dipswitch |
| DC emergency (DCemDim) | No | | With a DC mains the output current is 100%. (EOF1) |

Features

| Specification item | Value | Condition |
|---|-------|----------------------|
| Open load protection | Yes | Mains reset needed |
| 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 | 12.5 | A | Input voltage 230V |
| Inrush peak width | 266 | μs | Input voltage 230 V, measured at 50% height |
| Drivers / MCB 16A type B | ≤ 68 | pcs | Indicative value |



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

Driver touch current / protective conductor current

| Specification item | Value | Unit | Condition |
|---|-------|--------|---|
| Typical Protective Conductor Current (ins. Class I) | 0.7 | mA rms | Acc. IEC60598-1. LED module contribution not included |

Surge immunity

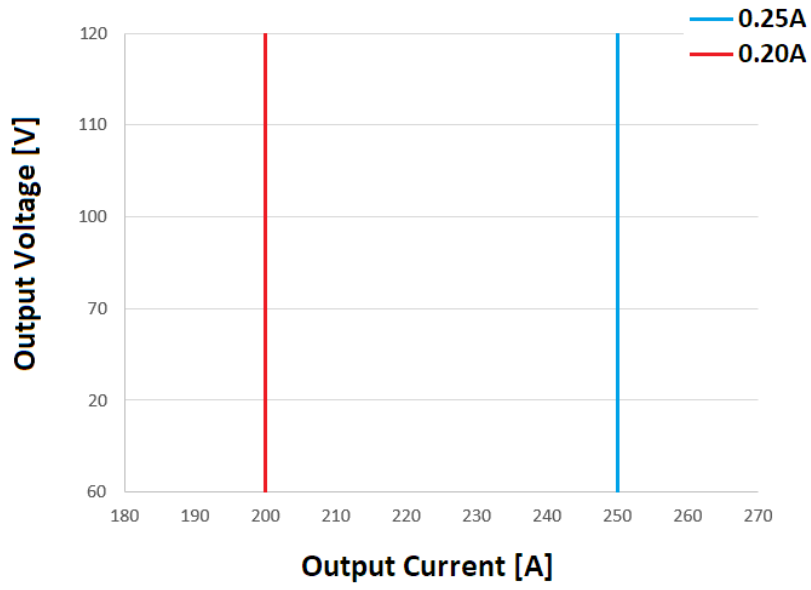
| Specification item | Value | Unit | Condition |
|-----------------------------------|-------|------|---|
| Mains surge immunity (diff. mode) | 1 | kV | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us |
| Mains surge immunity (comm. mode) | 2 | kV | Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us |

Application Info

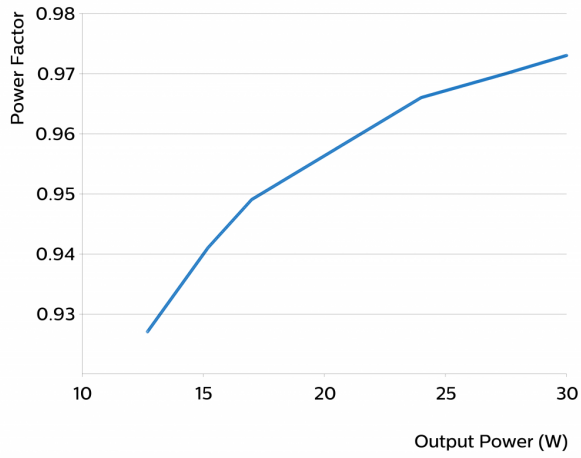
| Specification item | Value |
|--|----------------------------------|
| Approval marks | CCC / CE / EAC / EL / ENEC / RCM |
| Ingress Protection classification (IP) | 20 |
| Application | Indoor Linear |
| Mounting Type | Built-in |

Graphs

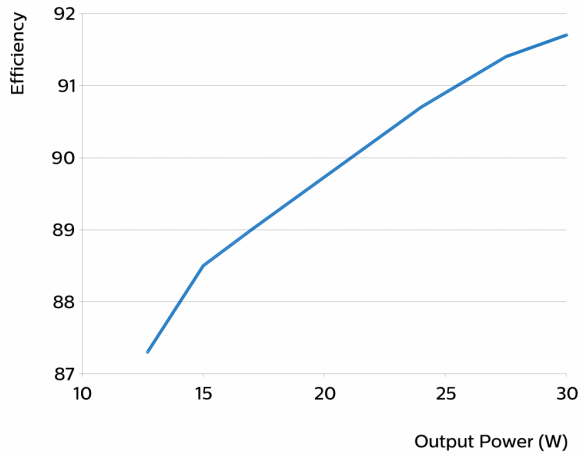
Operating window



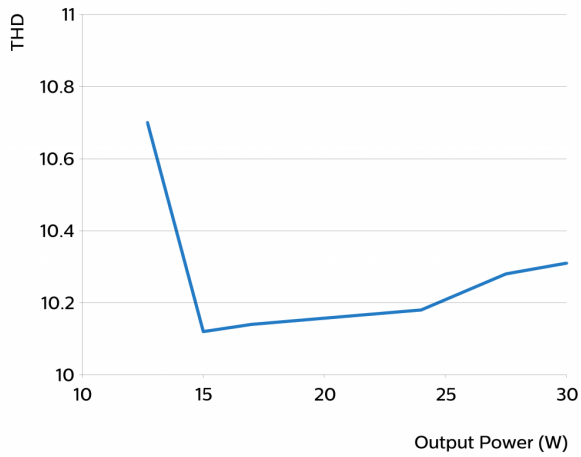
Power factor versus output power



Efficiency versus output power



THD versus output power



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