



Xitanium

LED driver



Datasheet

Xitanium Round Shape Highbay LED Drivers

Xi RHB 200W 0.66-1.1A 1-10V WL AUX 132S

9290 034 59180

Xitanium Round Shape Highbay (RHB) LED Drivers are designed to deliver reliable and efficient LED drivers in industrial applications. The WideLine family can operate on input voltage 100-277Vac and ensure 100% performance from 200-254Vac.

Features

- Digital and simple Adjustable Output Current (AOC) with e-set tool, based on NFC technology
- WideLine input voltage range: 100-277Vac
- Surge protection: 4/4kV (DM/CM)
- IP65 with 50,000 hours lifetime
- High efficiency: 94%-95%
- 1-10V dimming + AUX power (12V, 200mA)

Benefits

- Reliable and repeatable adjustment of output current/voltage to save labor cost and time
- Easy to design-in and reduces SKUs
- Low maintenance cost and peace of mind in extreme conditions
- Enables various applications for energy saving

Application

- Highbay industrial lighting
- Warehouse lighting

Logistical data

| Specification item | Value |
|--------------------|---|
| Product name | Xi RHB 200W 0.66-1.1A 1-10V WL AUX 132S |
| Logistic code 12NC | 9290 034 59180 |
| Pieces per box | 10 |

Electrical input data

| Specification item | Value | Unit | Condition |
|---------------------------|-----------|-----------------|---|
| Rated input voltage range | 200...254 | V _{ac} | Performance range |
| Rated input voltage | 230 | V _{ac} | |
| Rated input frequency | 50...60 | Hz | Performance range |
| Rated input current | 1 | A | @ rated output power @ rated input voltage |
| Max. input current | 1.5 | A | @ rated output power @ minimum performance input voltage |
| Rated input power | 215.0 | W | @ rated output power @ rated input voltage |
| Power factor | ≥ 0.95 | | @ rated output power @ rated input voltage |
| Total harmonic distortion | 10 | % | @ rated output power @ rated input voltage |
| Efficiency | 95.0 | % | @ rated output power @ rated input voltage @max. U _{out} |
| Input voltage AC | 85...305 | V _{ac} | Operational range |
| Input frequency AC | 47...63 | Hz | Operational range |
| Standby Power (no load) | 0.5 | W | |

Electrical output data

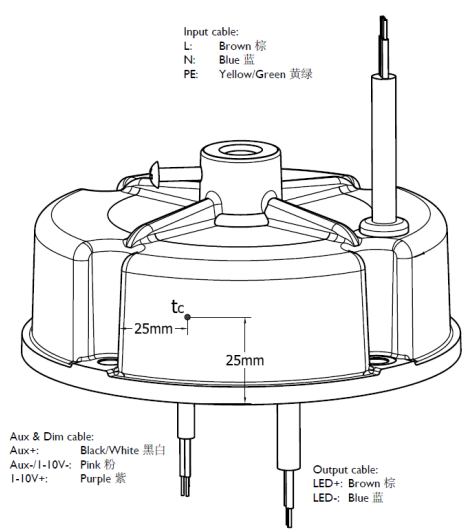
| Specification item | Value | Unit | Condition |
|--------------------------------------|------------------|-----------------|----------------------------------|
| Regulation method | Constant Current | | |
| Output voltage | 160...260 | V _{dc} | |
| Output voltage max. | 330 | V | Maximum output voltage (rms) |
| Output current | 660...1100 | mA | |
| Output current min programmable | 660 | mA | |
| Min output current | 66 | mA | |
| Output current tolerance ± | 5 | % | @full load |
| Output current ripple LF | ≤ 5 | % | Ripple = peak / average, < 3kHz |
| Output current ripple HF | ≤ 15 | % | |
| Output P _{st} ^{LM} | ≤ 0.8 | | In entire operating window |
| Output SVM | ≤ 0.3 | | In entire operating window |
| Output power | 10.5...200.0 | W | |
| Minimum performance output power | 140 | W | Power factor > 0.9 and THD < 20% |

Control interfaces

| Specification item | Value | Unit | Condition |
|------------------------------------|------------|------|---|
| Control method | 1-10V | | Output current amplitude dimming, 1-10V acc. IEC60929 |
| Dimming range | 10...100 | % | Default range |
| Isolation controls input to output | Reinforced | | acc. IEC61347-1 |

Wiring and Connections

| Specification item | Value | Unit | Type |
|----------------------------|-------|-----------------|--|
| Input wire cross-section | 1.0 | mm ² | 3-wire cable |
| Output wire cross-section | 1.0 | mm ² | 2-wire cable |
| Control wire cross-section | 0.33 | mm ² | 3-wire cable |
| Maximum cable length | 2 | m | Total length of wiring including LED module, one way |

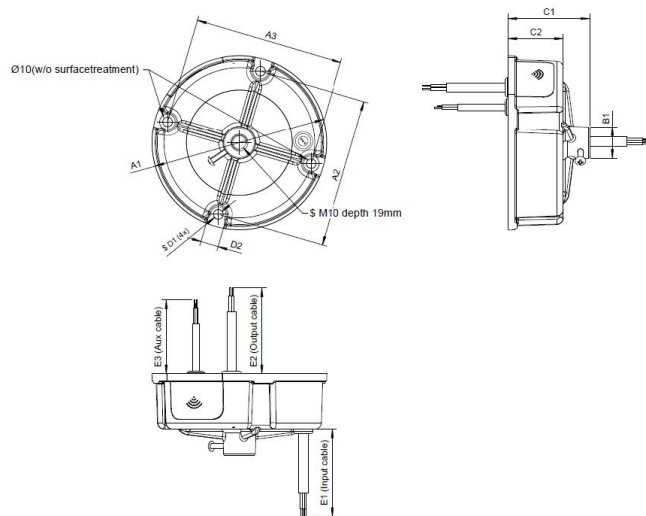


Isolation

| Insulation per IEC61347-1 | Mains | Output | Dim & AUX | PE |
|---------------------------|--------|--------|-----------|-------|
| Mains | - | Non | Double | Basic |
| Output | Non | - | Double | Basic |
| Dim & AUX | Double | Double | - | Basic |
| PE | Basic | Basic | Basic | - |

Dimensions and weight

| Specification item | Value | Unit | Tolerance (mm) |
|-----------------------------|-------|------|----------------|
| Length (A1) | 132 | mm | |
| Mounting hole distance (A2) | 113 | mm | |
| Length (A3) | 113 | mm | |
| Width (B1) | 24 | mm | |
| Height (C1) | 62.3 | mm | |
| Height (C2) | 42.3 | mm | |
| Mounting hole diameter (D1) | 7 | mm | |
| Mounting hole diameter (D2) | 13.2 | mm | |
| Input cable length (E1) | 300 | mm | |
| Output cable length (E2) | 300 | mm | |
| Control cable length (E3) | 250 | mm | |
| Weight | 840 | gram | |

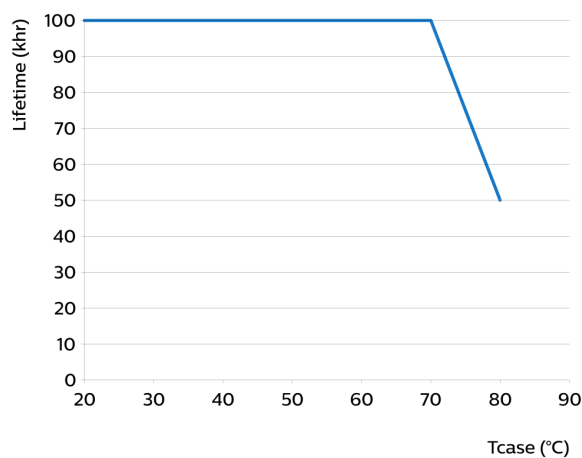


Operational temperatures and humidity

| Specification item | Value | Unit | Condition |
|-----------------------------|-----------|------|---|
| Ambient temperature | -40...+60 | °C | Higher ambient temperature allowed as long as T _{case-max} is not exceeded |
| T _{case-max} | 80 | °C | Maximum temperature measured at T _{case-point} |
| T _{case-life} | 70 | °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 | 50,000 | hours | Measured temperature at Tcase-point is Tcase-max. Maximum failures = 10% |



Maximum failures = 10%

Storage temperature and humidity

| Specification item | Value | Unit | Condition |
|---------------------|-----------|------|----------------|
| Ambient temperature | -40...+80 | °C | |
| Relative humidity | 5...95 | % | Non-condensing |

Programmable features

| Specification item | Available | Default setting | Condition |
|-------------------------------------|-----------|-----------------|-----------|
| Set Adjustable Output Current (AOC) | NFC | 660 mA | |

Non-programmable features

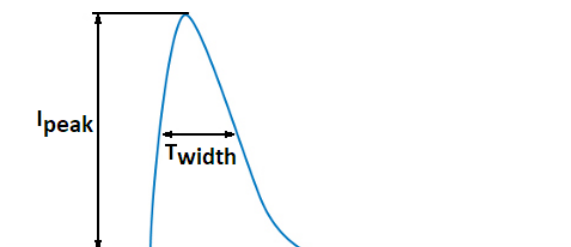
| Specification item | Value | | Condition |
|---|-------|--|----------------------|
| Open load protection | Yes | | Automatic recovering |
| Short circuit protection | Yes | | Automatic recovering |
| Over power protection | No | | |
| Hot wiring | No | | |
| Suitable for fixtures with protection class | I | | per IEC60598 |
| Overtemperature protection | Yes | | Automatic recovering |

Inrush current

| Specification item | Value | Unit | Condition |
|--------------------------|-------|------|---|
| Inrush current | 80 | A | Input voltage 230V |
| Inrush peak width | 226 | μs | Input voltage 230 V, measured at 50% height |
| Drivers / MCB 16A type B | ≤ 6 | pcs | Indicative value at 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) | 1 | mA rms | Acc. IEC60598-1. LED module contribution not included |

Surge immunity

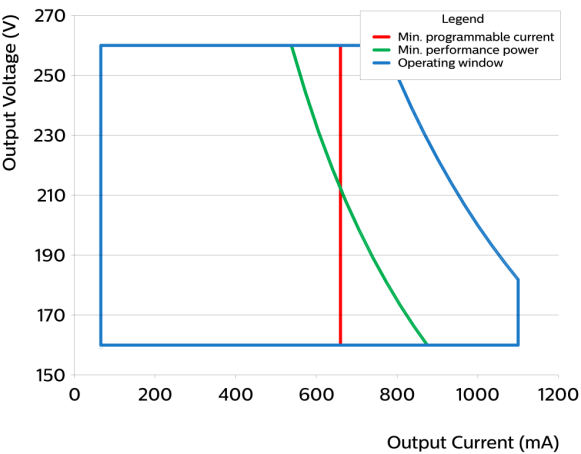
| Specification item | Value | Unit | Condition |
|-----------------------------------|-------|------|---|
| Mains surge immunity (diff. mode) | 4 | kV | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us |
| Mains surge immunity (comm. mode) | 4 | kV | Acc. IEC61000-4-5. 12 Ohm, 1.2/50us, 8/20us |

Application Info (Approbation)

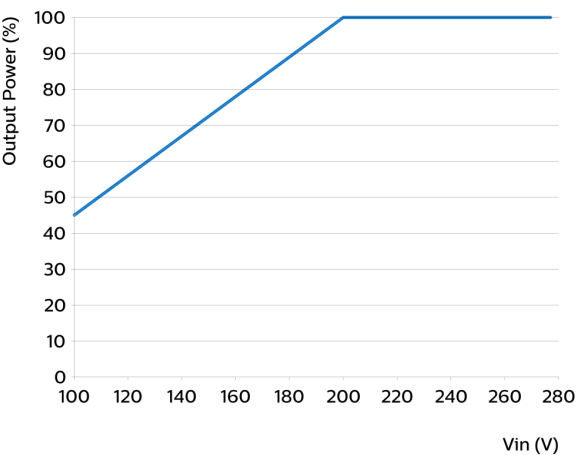
| Specification item | Value |
|--|-----------------------------------|
| Approval marks and Certifications | CB / CCC / CE / ENEC / RCM / UKCA |
| Ingress Protection classification (IP) | 65 |
| Mounting Type | Independent |

Graphs

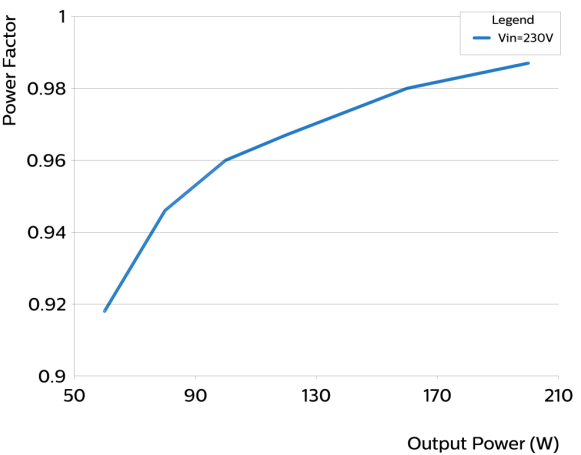
Operating window



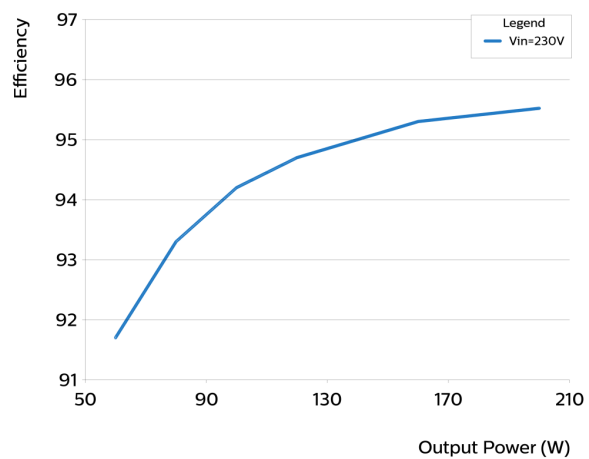
Mains Guard



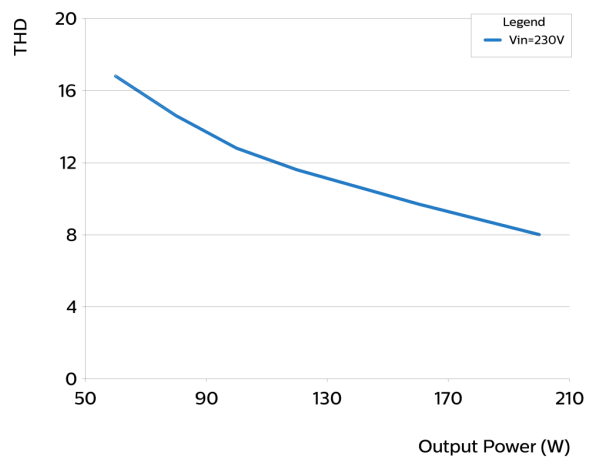
Power factor versus output power

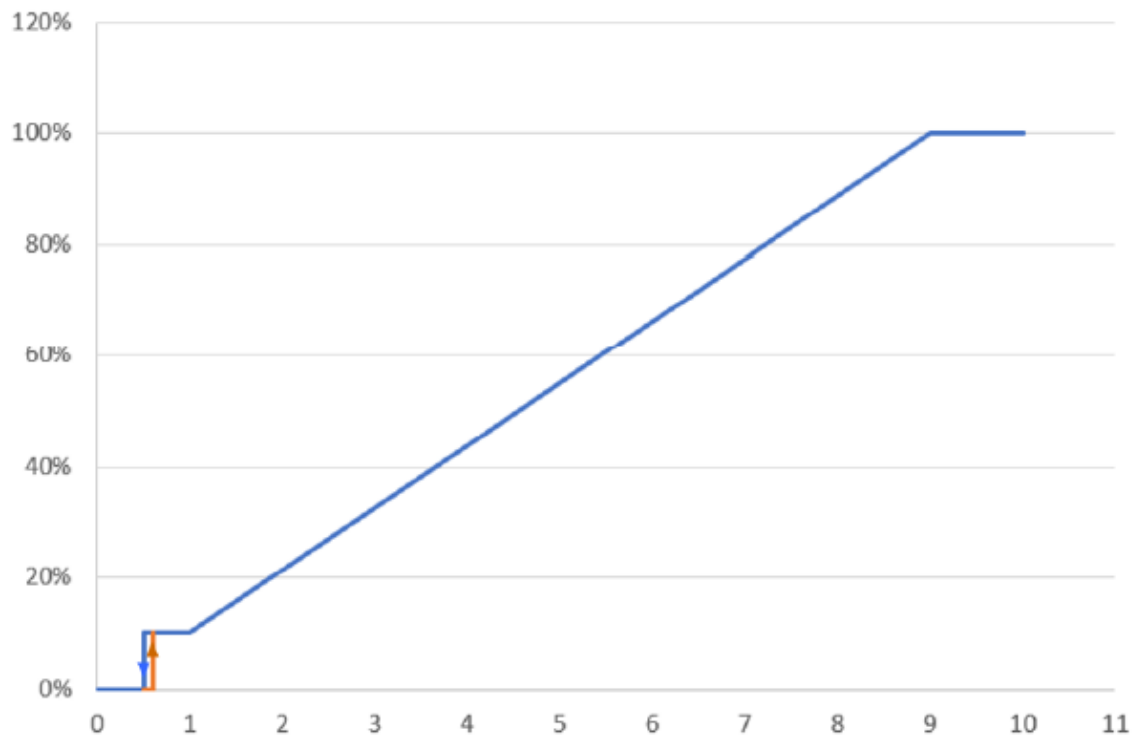


Efficiency versus output power



THD versus output power





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