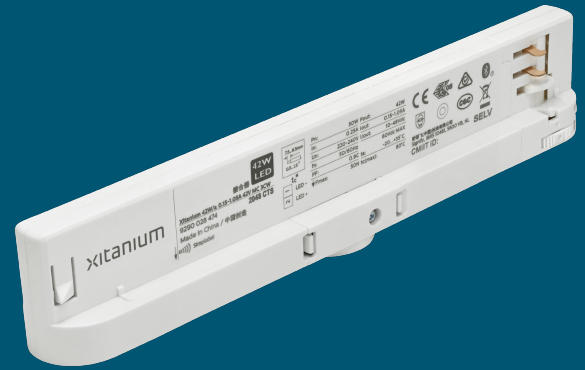


## Datasheet

# Xitanium track adaptor drivers (3C)

Xitanium 42W/a 0.15-1.05A 42V MC 3CW  
9290 028 47406



### Affordable and reliable LED Drivers

Affordable LED driver range offering Philips reliability. The Xitanium track driver range is compatible with COB and mid-power LEDs from any LED manufacturer.

### Benefits

- Driver design based on Philips experience and knowledge of conventional fluorescent and HID technologies
- Various power ratings matching common lumen packages/applications
- Track adaptor housing design for compact track luminaire designs

### Application

- Public buildings (airports, cinemas, theaters, exhibition halls)
- Retail (supermarkets, shops)
- Offices

### Features

- Compact size
- Specific, optimized dual-output current choice
- Long lifetime
- Low output current ripple, low input current THD
- Suitable for 3-phase track systems
- Available in white, black and grey housing color

Logistical data

| Specification item | Value                                |
|--------------------|--------------------------------------|
| Product name       | Xitanium 42W/a 0.15-1.05A 42V MC 3CW |
| EOC                | 871951429400400                      |
| Logistic code 12NC | 9290 028 47406                       |
| EAN1 (GTIN)        | 8719514294004                        |
| EAN3 (box)         | 8719514294011                        |
| Pieces per box     | 40                                   |
| Weight             | 160 gram                             |

| Specification item | Value                                |
|--------------------|--------------------------------------|
| Product name       | Xitanium 42W/a 0.15-1.05A 42V MC 3CB |
| EOC                | 871951429402800                      |
| Logistic code 12NC | 9290 028 51206                       |
| EAN1 (GTIN)        | 8719514294028                        |
| EAN3 (box)         | 8719514294035                        |
| Pieces per box     | 40                                   |

| Specification item | Value                                |
|--------------------|--------------------------------------|
| Product name       | Xitanium 42W/a 0.15-1.05A 42V MC 3CG |
| EOC                | 871951429404200                      |
| Logistic code 12NC | 9290 028 51306                       |
| EAN1 (GTIN)        | 8719514294042                        |
| EAN3 (box)         | 8719514294059                        |
| Pieces per box     | 40                                   |

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            | 0.22      | A               | @ full output power @ rated input voltage                                           |
| Max. input current             | 0.25      | A               | @ rated output power @ minimum performance input voltage                            |
| Rated input power              | 50.0      | W               | @ rated output power @ rated input voltage                                          |
| Power factor performance range | ≥ 0.90 C  |                 | @ full output power @ rated input voltage@ rated output power @ rated input voltage |
| Total harmonic distortion      | 20        | %               | @ rated output power @ rated input voltage                                          |
| Efficiency                     | 87.0      | %               | @ rated output power @ rated input voltage @ max. U <sub>out</sub>                  |
| Input voltage AC               | 198...264 | V <sub>ac</sub> | Safety operational range                                                            |
| Input frequency AC             | 45...66   | Hz              | Safety operational range                                                            |
| Standby Power (no load)        | 0.42      | W               |                                                                                     |
| Isolation input to output      | SELV      |                 |                                                                                     |

Electrical output data

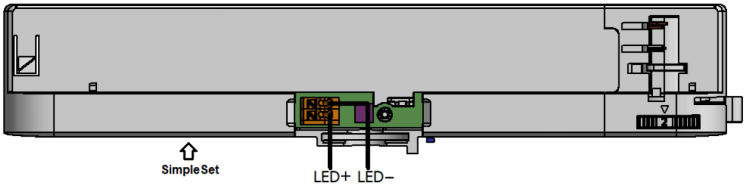
| Specification item                   | Value            | Unit            | Condition                       |
|--------------------------------------|------------------|-----------------|---------------------------------|
| Regulation method                    | Constant Current |                 |                                 |
| Output voltage                       | 10...48          | V <sub>dc</sub> |                                 |
| Output voltage max.                  | 60               | V               | Maximum output voltage (rms)    |
| Output current                       | 150...1050       | mA              |                                 |
| Output current min programmable      | 150              | mA              |                                 |
| Output current tolerance ±           | 5                | %               | @full load                      |
| Output current ripple LF             | ≤ 4              | %               | Ripple = peak / average, < 3kHz |
| Output P <sub>st</sub> <sup>LM</sup> | ≤ 1.0            |                 | Within entire operation window  |
| Output SVM                           | ≤ 0.6            |                 | Within entire operation window  |
| Output power                         | 10.0...42.0      | W               |                                 |

Control interfaces

| Specification item | Value                            | Unit | Condition                                                                                                                                                                 |
|--------------------|----------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control method     | Wireless BLE, Wireless<br>Zigbee |      | Set output current via SimpleSet (AOC). See driver design-in guide at <a href="http://www.philips.com/oem">www.philips.com/oem</a> for more details reg. controllability. |

Wiring and Connections

| Specification item        | Value               | Unit                  | Type                                   |
|---------------------------|---------------------|-----------------------|----------------------------------------|
| Output wire cross-section | 0.5...1.5 / 20...16 | mm <sup>2</sup> / AWG | solid / stranded wire                  |
| Output wire strip length  | 7.5...8.5           | mm                    |                                        |
| Maximum cable length      | 0.3                 | m                     | CISPR15: between driver and LED module |

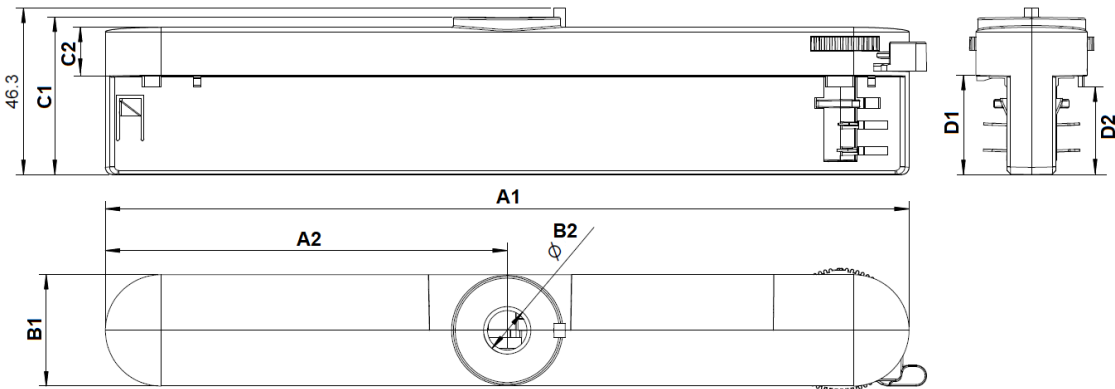


Isolation

| Insulation per IEC61347-1 | Input | Output |
|---------------------------|-------|--------|
| Input                     | -     | SELV   |
| Output                    | SELV  | -      |

Dimensions and weight

| Specification item          | Value | Unit | Tolerance (mm) |
|-----------------------------|-------|------|----------------|
| Length (A1)                 | 224   | mm   |                |
| Mounting hole distance (A2) | 112   | mm   |                |
| Width (B1)                  | 31    | mm   |                |
| Height (C1)                 | 43.8  | mm   |                |
| Height (C2)                 | 13.7  | mm   |                |
| Mounting hole diameter (D1) | 27.3  | mm   |                |
| Mounting hole diameter (D2) | 24.4  | mm   |                |
| Weight                      | 160   | gram |                |
| Housing color               | White |      |                |

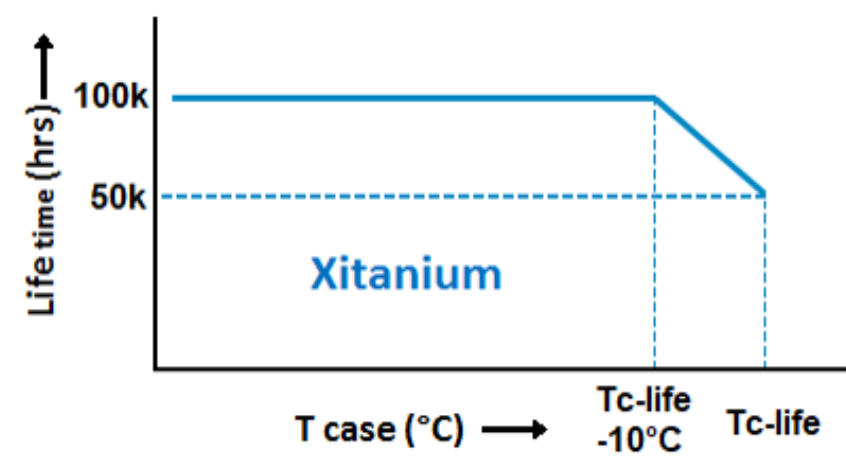


Operational temperatures and humidity

| Specification item          | Value     | Unit | Condition                                                                           |
|-----------------------------|-----------|------|-------------------------------------------------------------------------------------|
| Ambient temperature         | -20...+35 | °C   | Higher ambient temperature allowed as long as T <sub>case-max</sub> is not exceeded |
| T <sub>case-max</sub>       | 80        | °C   | Maximum temperature measured at T <sub>case-point</sub>                             |
| T <sub>case-life</sub>      | 80        | °C   | Measured at T <sub>case-point</sub>                                                 |
| Maximum housing temperature | 130       | °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-life.<br>Maximum failures = 10% |
| Driver lifetime Tcmax | 0      | hours | Measured temperature at Tcase-point is Tcase-life.<br>Maximum failures = 10% |



Maximum failures = 10%

| Temperature [°C] | Lifetime | Unit | Condition                      |
|------------------|----------|------|--------------------------------|
| 80               | 50000    | hr   | Temperature measured @Tc point |
| 75               | >50000   | hr   |                                |
| 70               | >50000   | 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 |
|-----------------------------------------|-----------|-----------------|-----------|
| Adjustable Light Output (ALO)           | Yes       | OFF             |           |
| Adjustable Light Output (ALO) min level | Yes       |                 |           |
| Constant Light Output (CLO)             | Yes       | OFF             |           |
| Touch & Dim (TD)                        | No        |                 |           |
| Corridor Mode                           | No        |                 |           |
| OEM Write Protection (OWP)              | Yes       | OFF             |           |
| Luminaire Info (DALI part 251)          | Yes       |                 |           |
| Tx Power                                | Yes       | 8 dBm           |           |

## Non-programmable features

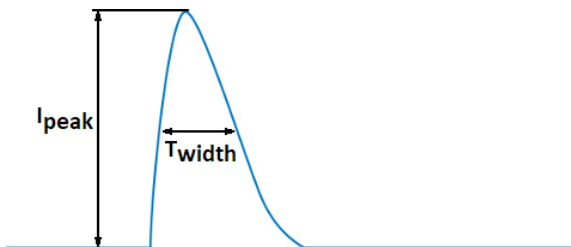
| Specification item       | Value | Condition            |
|--------------------------|-------|----------------------|
| Open load protection     | Yes   | Automatic recovering |
| Short circuit protection | Yes   | Automatic recovering |
| Over power protection    | Yes   | Automatic recovering |
| Hot wiring               | No    |                      |

## Inrush current

| Specification item                | Value | Unit | Condition                                  |
|-----------------------------------|-------|------|--------------------------------------------|
| Inrush current                    | 8.07  | A    | Input voltage 230V                         |
| Inrush peak width                 | 31    | µs   | Input voltage 230V, measured at 50% height |
| Drivers / MCB 16A type B @230V AC | ≤ 24  | 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



## Surge immunity

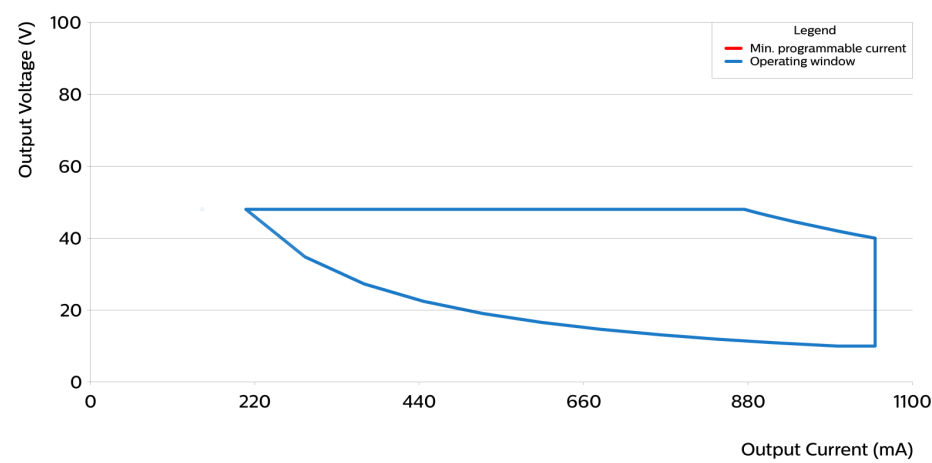
| Specification item                | Value | Unit | Condition                                   |
|-----------------------------------|-------|------|---------------------------------------------|
| Mains surge immunity (diff. mode) | 1     | kV   | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us  |
| Mains 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      | BLE alliance / CE / CQC / Double-insulated Built-In / ENEC / RCM / SELV / SRRC / UKCA / WEEE |
| Ingress Protection classification (IP) | 20                                                                                           |
| Application                            | Indoor Point                                                                                 |
| Mounting Type                          | Track mounting                                                                               |

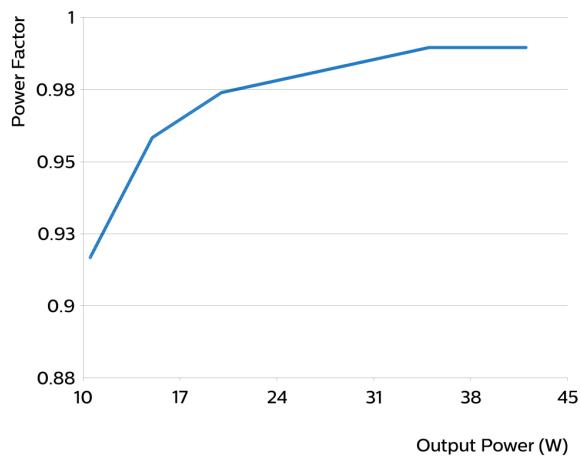
Graphs

Operating window

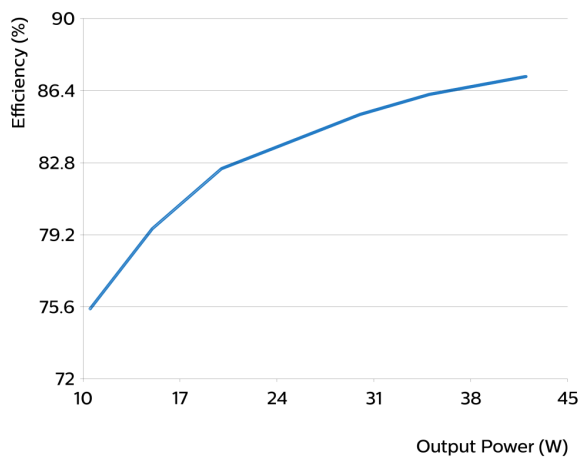


| Type                                 | Output current (mA) | Min. output voltage (V) | Max. output voltage (V) | Max. output power (W) |
|--------------------------------------|---------------------|-------------------------|-------------------------|-----------------------|
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 150                 | 66                      | 48                      | 7.2                   |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 200                 | 50                      | 48                      | 9.6                   |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 250                 | 40                      | 48                      | 12                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 300                 | 33                      | 48                      | 14.4                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 350                 | 28                      | 48                      | 16.8                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 400                 | 25                      | 48                      | 19.2                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 450                 | 22                      | 48                      | 21.6                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 500                 | 20                      | 48                      | 24                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 550                 | 18                      | 48                      | 26.4                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 600                 | 16                      | 48                      | 28.8                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 650                 | 15                      | 48                      | 31.2                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 700                 | 14                      | 48                      | 33.6                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 750                 | 13                      | 48                      | 36                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 800                 | 12                      | 48                      | 38.4                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 850                 | 11                      | 48                      | 40.8                  |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 900                 | 11                      | 46                      | 42                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 950                 | 10                      | 44                      | 42                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 1000                | 10                      | 42                      | 42                    |
| Xitanium 42W/a 0.15-1.05A 42V MC 3CW | 1050                | 10                      | 40                      | 42                    |

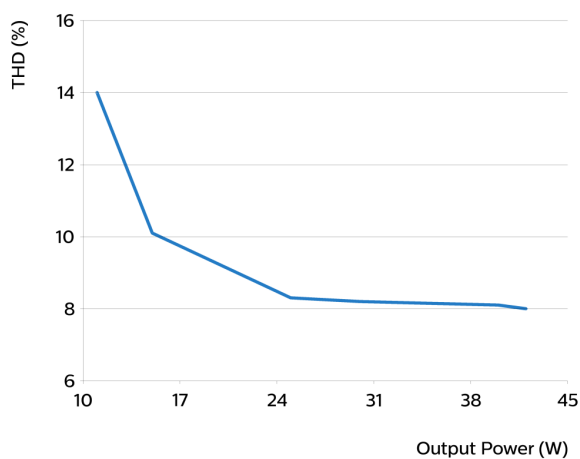
Power factor versus output power



Efficiency versus output power



THD versus output power



## Notes

The adapter is compatible with Global Trac Pro, Stucchi OneTrack 3 Circuit tracks.

For more information about the MasterConnect app see the End User Manual.

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CmBacktrace 1.3

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