

## Datasheet

# Xitanium track adaptor drivers

Xitanium 42W 0.7-1.05A 40V HE 3CW 230V  
9290 039 22006



### Combination of high performance and reliability

The development of Xitanium track drivers is now in a new phase with improved efficiency. The new portfolio boasts up to 7% increase in efficiency compared to standard track driver portfolio. We have also further optimized the performance of the new range enabling minimum efficiency loss at different points through the operating curve. Also with the flexibility provided by the increased number of dipswitches, Xitanium Track High Efficient range helps unlock the extraordinary potential of light, facilitating innovation and inspiring the next generation of luminaire design for our OEM customers.

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### Benefits

- Driver design based on Philips experience and knowledge of conventional fluorescent and HID technologies
- Various power ratings matching common lumen packages/applications
- Increased flexibility thanks to 3 dipswitches for output current setting

### Application

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

### Features

- High efficiency
- Compact size
- Optimized current choice
- Long lifetime
- Low output current ripple, low input current THD
- Suitable for 3-phase track systems

Logistical data

| Specification item | Value                                  |
|--------------------|----------------------------------------|
| Product name       | Xitanium 42W 0.7-1.05A 40V HE 3CW 230V |
| EOC                | 872110304343600                        |
| Logistic code 12NC | 9290 039 22006                         |
| EAN1 (GTIN)        | 8721103043436                          |
| EAN3 (box)         | 8721103043443                          |
| Pieces per box     | 40                                     |
| Weight             | 107.5 gram                             |

| Specification item | Value                                  |
|--------------------|----------------------------------------|
| Product name       | Xitanium 42W 0.7-1.05A 40V HE 3CB 230V |
| EOC                | 872110304345000                        |
| Logistic code 12NC | 9290 039 22106                         |
| EAN1 (GTIN)        | 8721103043450                          |
| EAN3 (box)         | 8721103043467                          |
| Pieces per box     | 40                                     |

| Specification item | Value                                  |
|--------------------|----------------------------------------|
| Product name       | Xitanium 42W 0.7-1.05A 40V HE 3CG 230V |
| EOC                | 872110304347400                        |
| Logistic code 12NC | 9290 039 22206                         |
| EAN1 (GTIN)        | 8721103043474                          |
| EAN3 (box)         | 8721103043481                          |
| 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            | 0.199      | A               | @ full output power @ rated input voltage                            |
| Rated input power              | 45.7       | W               | @ rated output power @ rated input voltage                           |
| Power factor performance range | ≥ 0.90 C   |                 | @ rated output power @ rated input voltage                           |
| Total harmonic distortion      | 20         | %               | @ rated output power @ rated input voltage                           |
| Efficiency                     | 92.0       | %               | @ rated output power @ rated input voltage @max.<br>U <sub>out</sub> |
| Input voltage AC               | 198...264  | V <sub>ac</sub> | Operational range                                                    |
| Input frequency AC             | 45...66    | Hz              | Operational range                                                    |
| Isolation input to output      | Reinforced |                 |                                                                      |

Electrical output data

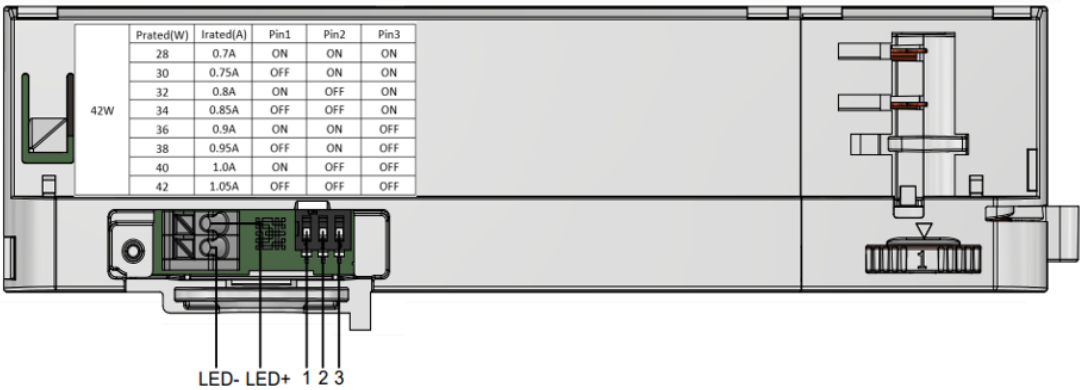
| Specification item                   | Value            | Unit            | Condition                                                        |
|--------------------------------------|------------------|-----------------|------------------------------------------------------------------|
| Regulation method                    | Constant Current |                 |                                                                  |
| Output voltage                       | 25...40          | V <sub>dc</sub> |                                                                  |
| Output voltage max.                  | 60               | V               | Maximum output voltage (rms)                                     |
| Output current                       | 700 ... 1050     | mA              | Select output current via the dipswitches with steps of 43.75 mA |
| Output current tolerance ±           | 7.5              | %               | @full load                                                       |
| Output current ripple LF             | ≤ 3              | %               | Ripple = peak / average, < 3kHz                                  |
| Output current ripple HF             | ≤ 15             | %               |                                                                  |
| Output P <sub>st</sub> <sup>LM</sup> | ≤ 1.0            |                 | In entire operating window                                       |
| Output SVM                           | ≤ 0.4            |                 | In entire operating window                                       |
| Output power                         | 17.5...42.0      | W               |                                                                  |
| Rated output power                   | 42.0             | W               |                                                                  |

Control interfaces

| Specification item | Value | Unit | Condition        |
|--------------------|-------|------|------------------|
| Control method     | Fixed |      | Set by dipswitch |

Wiring and Connections

| Specification item        | Value               | Unit      | Type                                                 |
|---------------------------|---------------------|-----------|------------------------------------------------------|
| Input wire cross-section  | 0.5 / 20            | mm² / AWG | solid, tinned, stranded                              |
| Output wire cross-section | 0.2...0.5 / 24...20 | mm² / AWG | solid wire                                           |
| Output wire strip length  | 8.5...9.5           | mm        |                                                      |
| Maximum cable length      | 0.3                 | m         | Total length of wiring including LED module, one way |

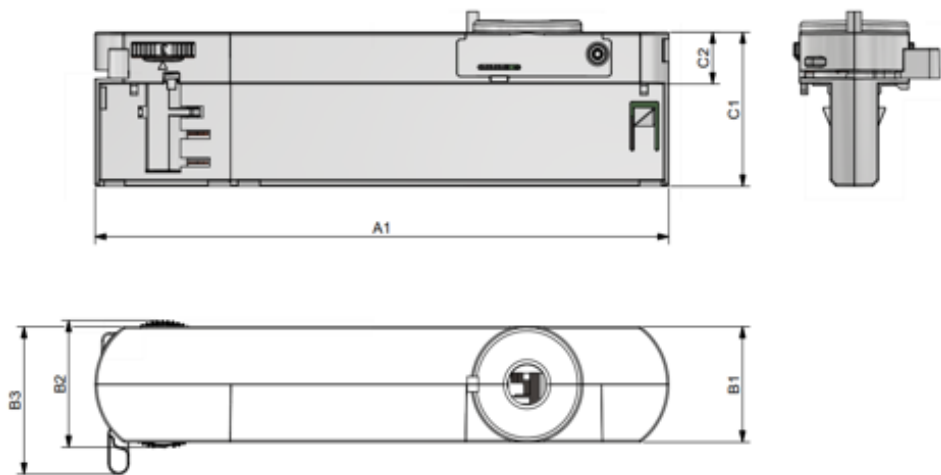


Isolation

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

## Dimensions and weight

| Specification item | Value              | Unit | Tolerance (mm) |
|--------------------|--------------------|------|----------------|
| Length (A1)        | 162                | mm   | ± 1.5          |
| Width (B1)         | 31                 | mm   | ± 1            |
| Width (B2)         | 33                 | mm   | ± 1            |
| Width (B3)         | 39.6               | mm   | ± 0.5          |
| Height (C1)        | 44.4               | mm   | ± 1            |
| Height (C2)        | 13.9               | mm   | ± 0.3          |
| Weight             | 107.5              | gram |                |
| Housing color      | White, Black, Gray |      |                |

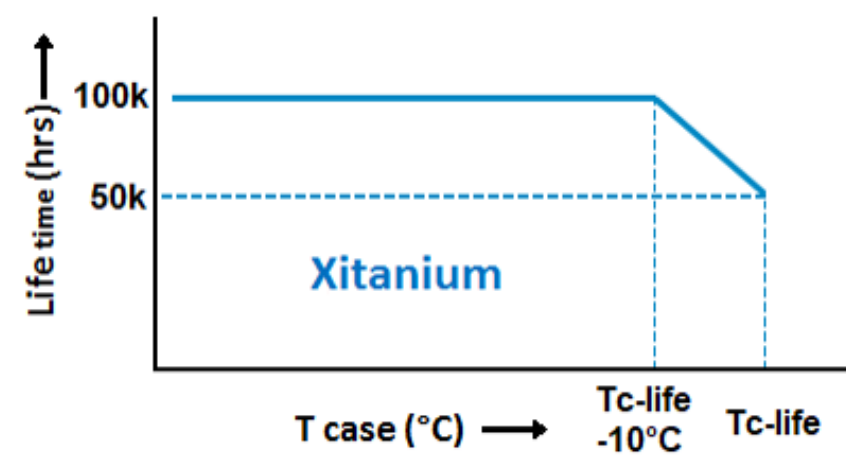


## Operational temperatures and humidity

| 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       | 100,000 | hours | Measured temperature at Tcase-point is Tcase-life<br>-10 degrees. 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               | 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 | 1050 mA         | Set the output current via the dipswitches, see wiring diagram for an overview |

## Non-programmable features

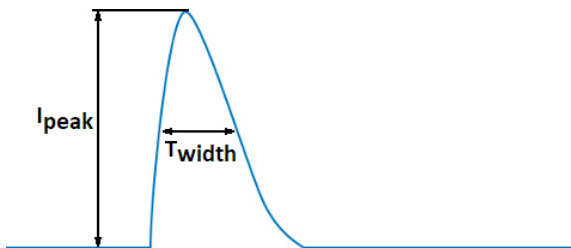
| Specification item                          | Value | Condition            |
|---------------------------------------------|-------|----------------------|
| Open load protection                        | Yes   | Automatic recovering |
| Short circuit protection                    | Yes   | Automatic 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                    | 20.1  | A    | Input voltage 230V                         |
| Inrush peak width                 | 141   | µs   | Input voltage 230V, measured at 50% height |
| Drivers / MCB 16A type B @230V AC | ≤ 47  | 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 Touch Current (ins. Class II) | 0.7   | mA peak | Acc. IEC61347-1. LED module contribution not included |

## Surge immunity

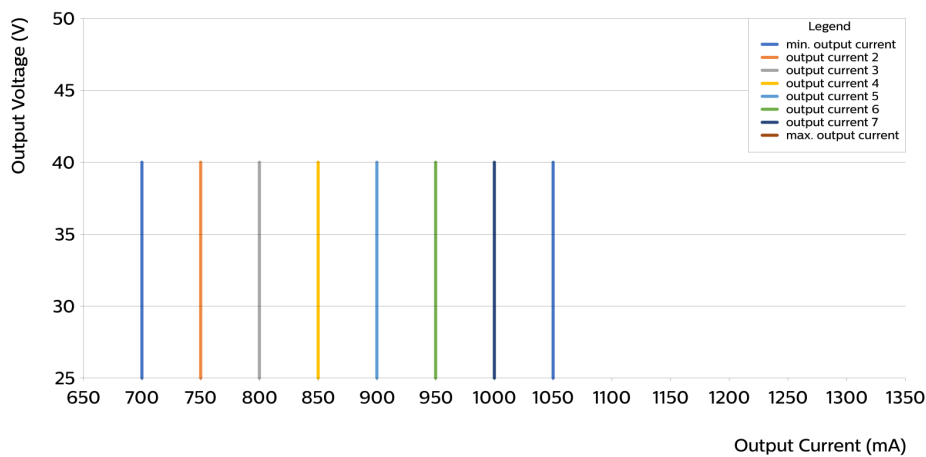
| Specification item                | Value | Unit | Condition                                   |
|-----------------------------------|-------|------|---------------------------------------------|
| Mains surge immunity (diff. mode) | 1     | kV   | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us  |
| Mains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

## Application Info (Approbation)

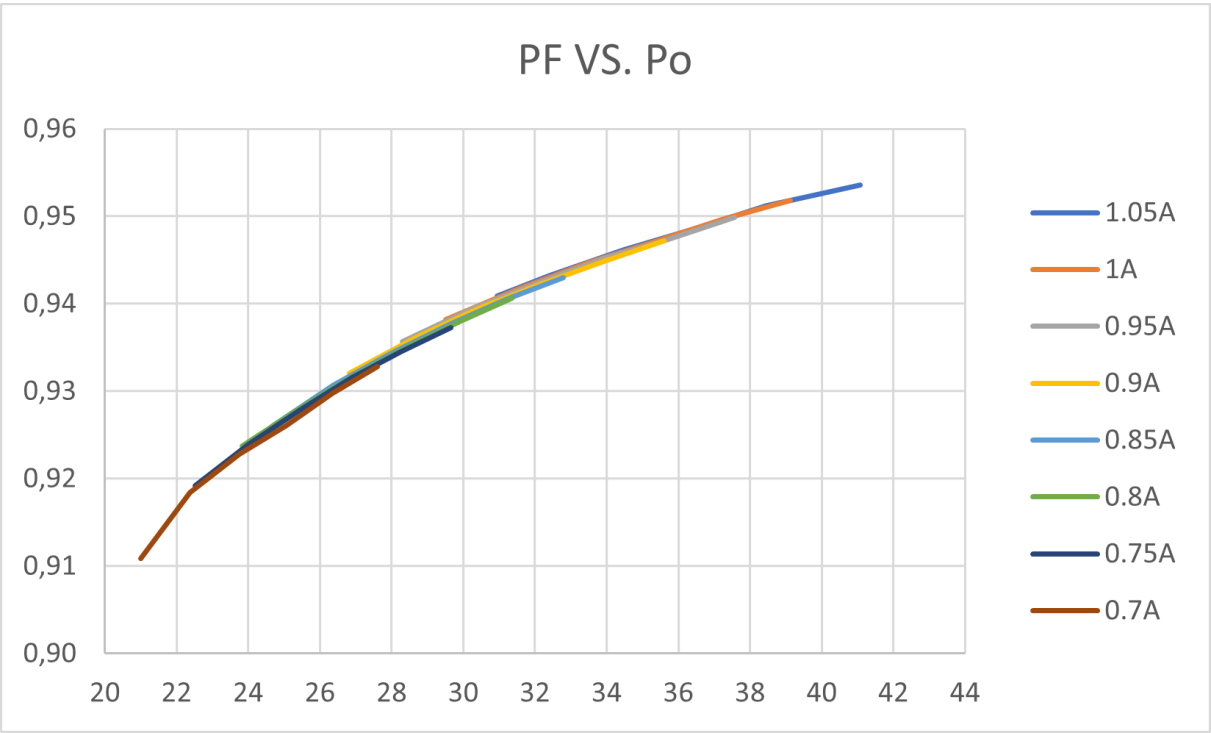
| Specification item                     | Value                                          |
|----------------------------------------|------------------------------------------------|
| Approval marks and Certifications      | CB / CE / CQC / EAC / ENEC / RCM / SELV / UKCA |
| Ingress Protection classification (IP) | 20                                             |
| Application                            | Indoor Point                                   |
| Mounting Type                          | Track mounting                                 |

Graphs

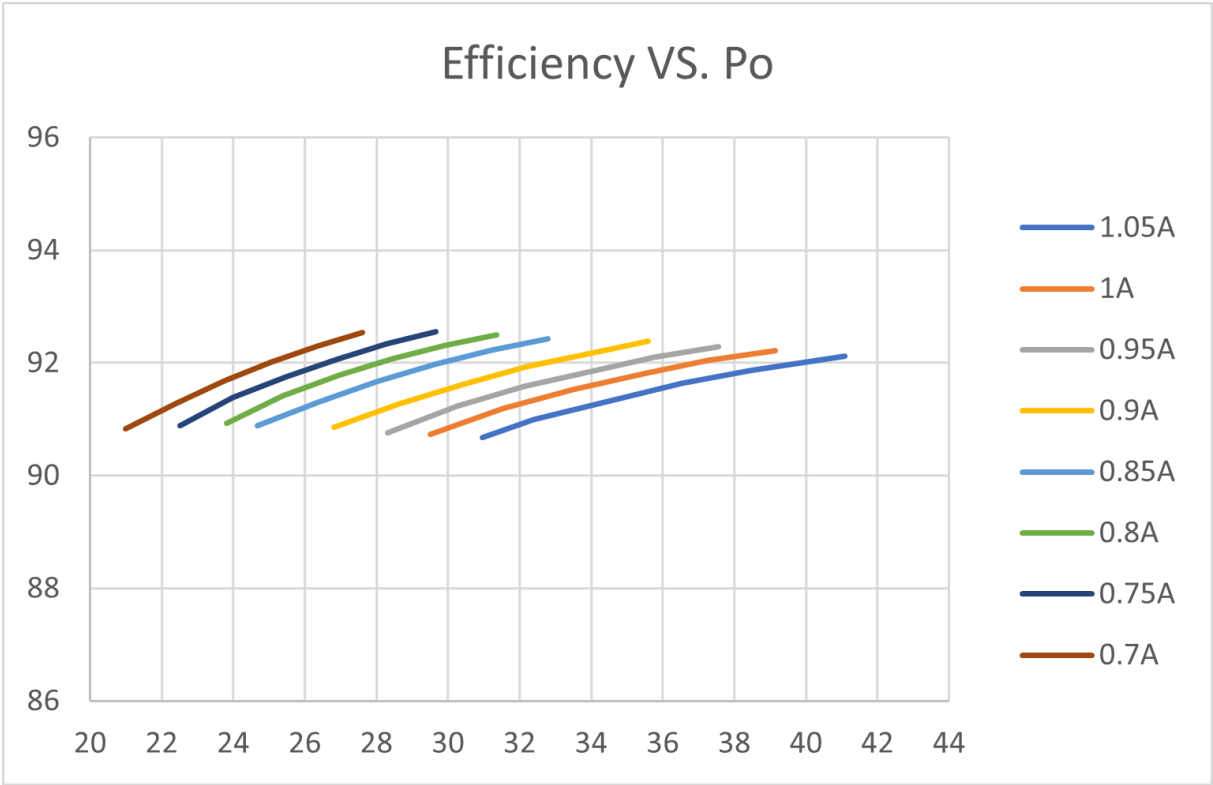
Operating window



Power factor versus output power



Efficiency versus output power



THD versus output power

