

## Datasheet

# Xitanium track adaptor drivers (3C)

Xi 34W/a 0.7-0.85A 40V DS 3CG 230V  
9290 028 50080

### 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       | Xi 34W/a 0.7-0.85A 40V DS 3CG 230V |
| Logistic code 12NC | 9290 028 50080                     |
| Pieces per box     | 80                                 |
| Weight             | 130 gram                           |

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            | 0.17      | A               | @ full output power @ rated input voltage                                           |
| Rated input power              | 38.4      | 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                     | 89.0      | %               | @ 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                                                            |
| Isolation input to output      | SELV      |                 |                                                                                     |

Electrical output data

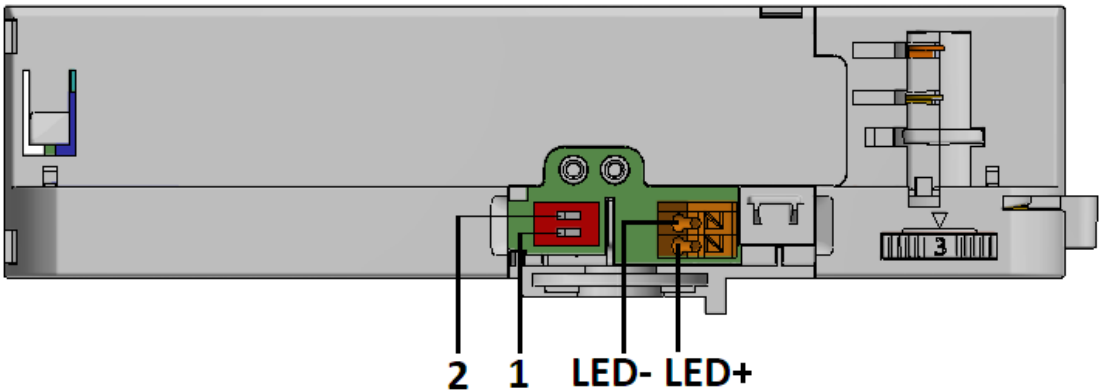
| Specification item                   | Value                 | Unit            | Condition                                 |
|--------------------------------------|-----------------------|-----------------|-------------------------------------------|
| Regulation method                    | Constant Current      |                 |                                           |
| Output voltage                       | 30...40               | V <sub>dc</sub> |                                           |
| Output voltage max.                  | 60                    | V               | Maximum output voltage (rms)              |
| Output current                       | 700 / 750 / 800 / 850 | mA              | Select output current via the dipswitches |
| Output current tolerance ±           | 8                     | %               | @full load                                |
| Output current ripple LF             | ≤ 4                   | %               | Ripple = peak / average, < 3kHz           |
| Output current ripple HF             | ≤ 15                  | %               |                                           |
| Output P <sub>st</sub> <sup>LM</sup> | ≤ 0.1                 |                 | In entire operating window                |
| Output SVM                           | ≤ 0.3                 |                 | In entire operating window                |
| Output power                         | 21.0...34.0           | W               |                                           |
| Rated output power                   | 34.0                  | W               |                                           |

Control interfaces

| Specification item | Value | Unit | Condition                        |
|--------------------|-------|------|----------------------------------|
| Control method     | Fixed |      | Set output current via DipSwitch |

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  | 8.5...9.5           | mm                    |                                                      |
| Maximum cable length      | 0.3                 | m                     | Total length of wiring including LED module, one way |

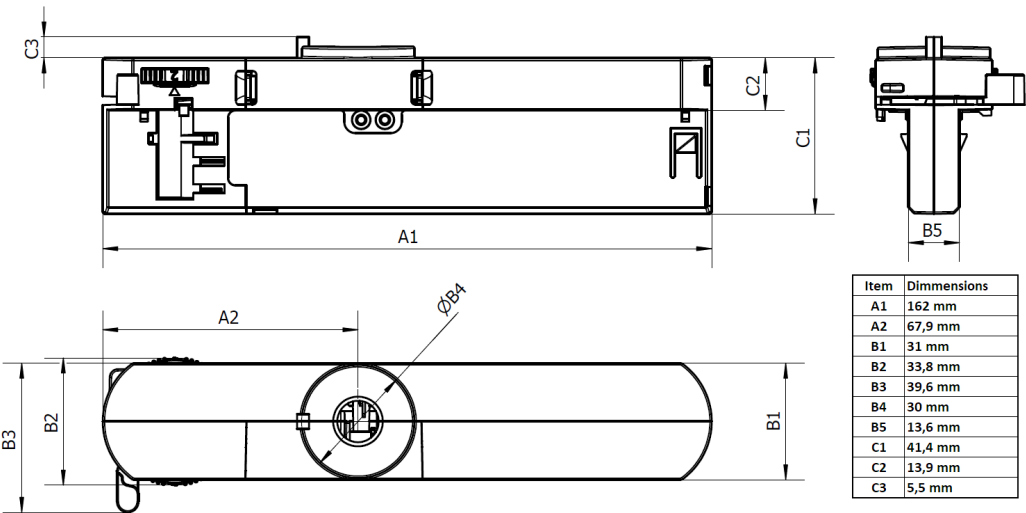


Isolation

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

Dimensions and weight

| Specification item          | Value           | Unit | Tolerance (mm) |
|-----------------------------|-----------------|------|----------------|
| Length (A1)                 | 162             | mm   |                |
| Mounting hole distance (A2) | 67.9            | mm   |                |
| Width (B1)                  | 31              | mm   |                |
| Width (B2)                  | 33.8            | mm   |                |
| Height (C1)                 | 41.4            | mm   |                |
| Height (C2)                 | 13.6            | mm   |                |
| Weight                      | 130             | gram |                |
| Housing color               | Grey (RAL 7040) |      |                |

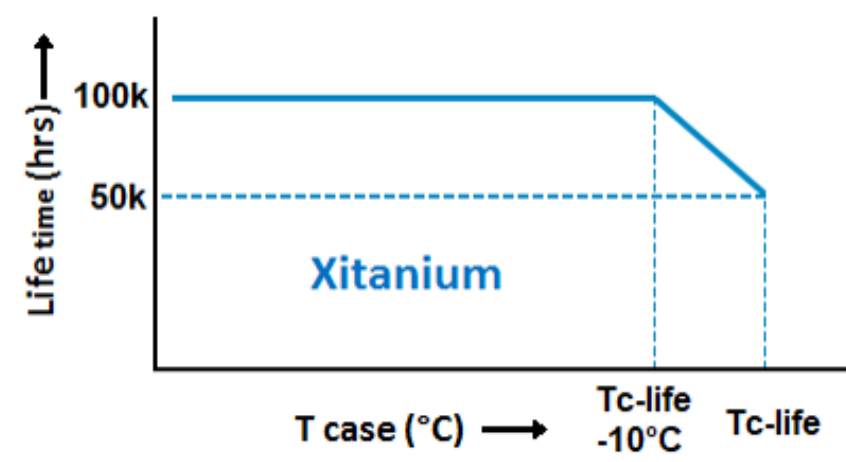


Operational temperatures and humidity

| Specification item          | Value     | Unit | Condition                                                               |
|-----------------------------|-----------|------|-------------------------------------------------------------------------|
| Ambient temperature         | -20...+35 | °C   | Higher ambient temperature allowed as long as Tcase-max is not exceeded |
| Tcase-max                   | 85        | °C   | Maximum temperature measured at T <sub>case</sub> -point                |
| Tcase-life                  | 75        | °C   | Measured at T <sub>case</sub> -point                                    |
| 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                      |
|------------------|----------|------|--------------------------------|
| 85               | 25000    | hr   | Temperature measured @Tc point |
| 80               | 35000    | hr   |                                |
| 75               | 50000    | hr   |                                |
| 70               | >50000   | hr   |                                |
| 65               | >50000   | hr   |                                |

Storage temperature and humidity

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

Programmable features

| Specification item                  | Available | Default setting | Condition                                                                      |
|-------------------------------------|-----------|-----------------|--------------------------------------------------------------------------------|
| Set Adjustable Output Current (AOC) | DipSwitch | 850 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         |

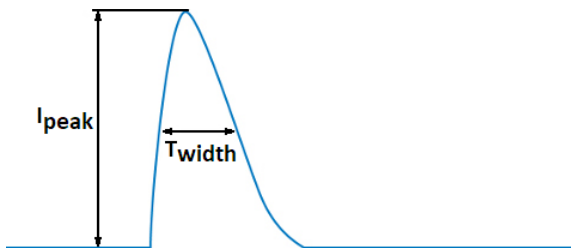
## Inrush current

| Specification item                | Value | Unit | Condition                               |
|-----------------------------------|-------|------|-----------------------------------------|
| Inrush current                    | 14.2  | A    | Input voltage V                         |
| Inrush peak width                 | 227   | µs   | Input voltage V, 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 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

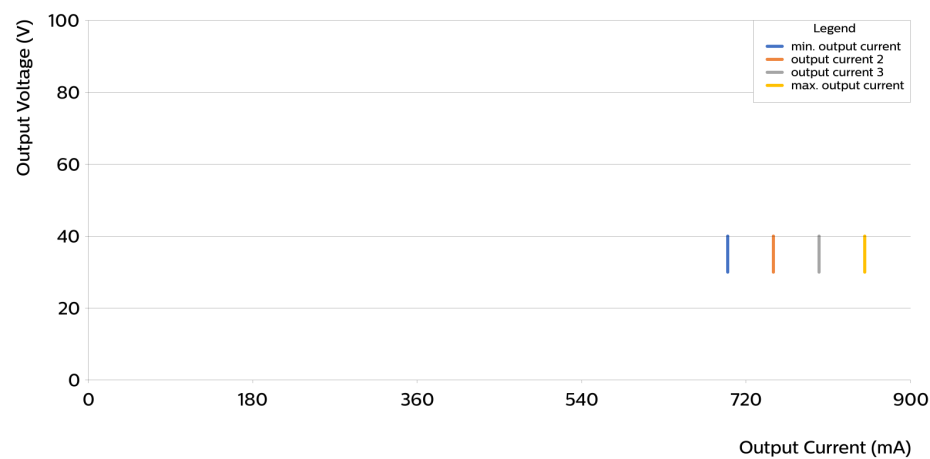
| Specification item                | Value | Unit | Condition                                   |
|-----------------------------------|-------|------|---------------------------------------------|
| Mains surge immunity (diff. mode) | 1     | kV   | Acc. IEC61000-4-5. 2 Ohm, 1.2/50us, 8/20us  |
| Mains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

## Application Info (Approbation)

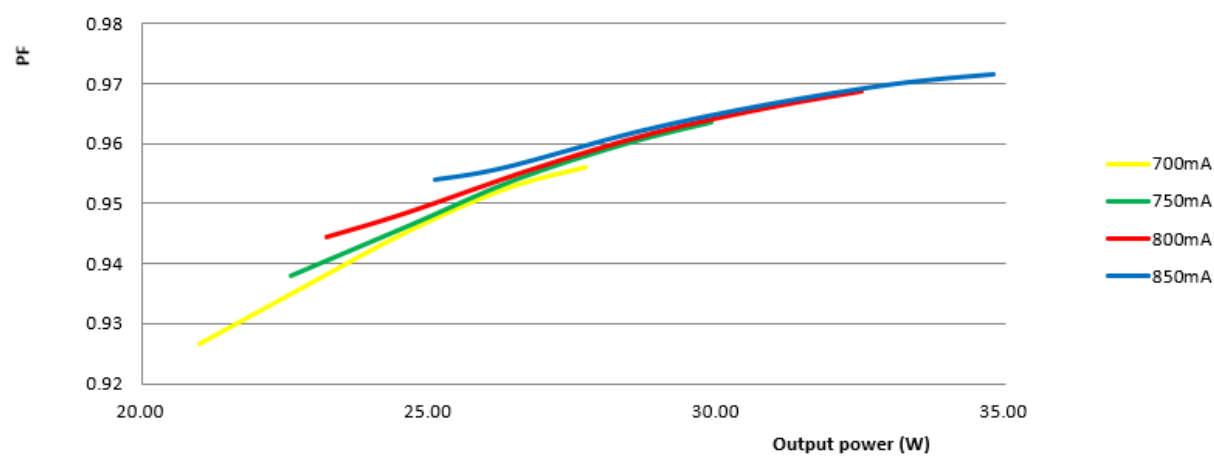
| Specification item                     | Value                                     |
|----------------------------------------|-------------------------------------------|
| Approval marks and Certifications      | CE / CQC / EAC / ENEC / RCM / SELV / WEEE |
| Ingress Protection classification (IP)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

Graphs

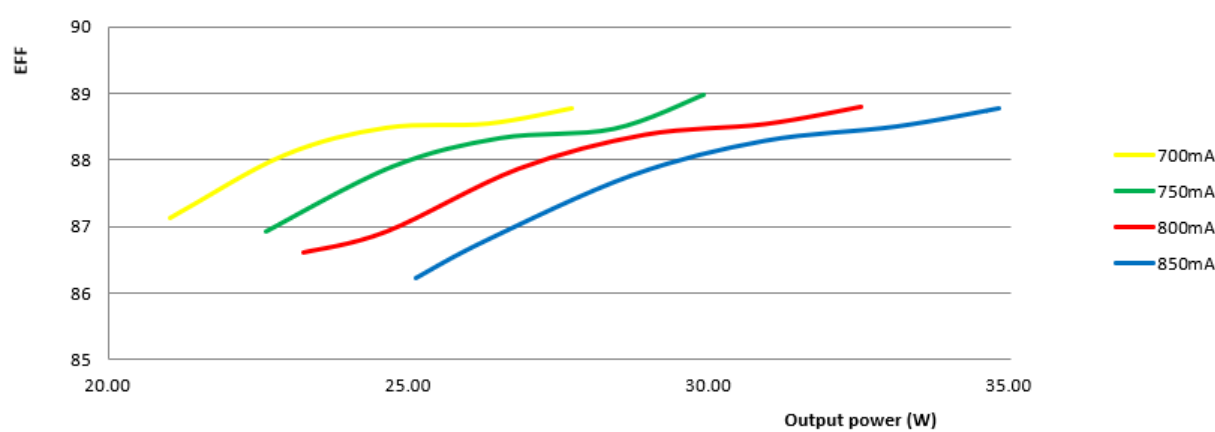
Operating window



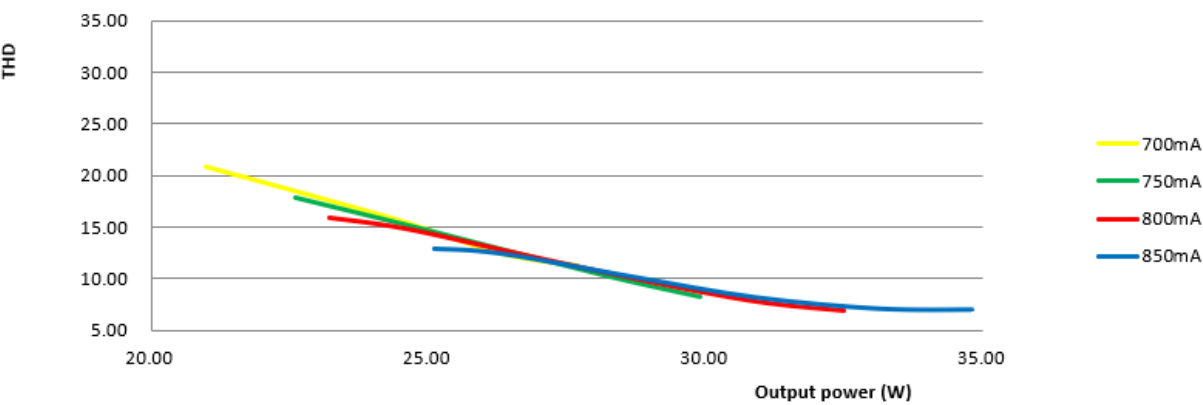
Power factor versus output power



Efficiency versus output power



## THD versus output power



## Notes

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