# 18652 - Quickguide Quantec Power supply box (TuFu Box) for up to 8 tower lights (en)

The Quantec Power supply box (TuFuBox) combines 8 terminals in a compact housing to supply up to eight Connectboxes (Maxi) for up to 8 tower lights or for up to 4 tower lights, each with redundant light.

Figure: Quantec TuFu Box

## Key features

- Compact design
- Supply of up to 8 Connectboxes in series connection with up to 8 tower lights or up to 4 tower lights each with redundant light
- Reporting of each individual fault for precise localisation
- Wire-saving system of the tower line (supply and communication)
- Integrated overvoltage protection

## General safety information for Quantec products

**NOTICE**

Before operating, installing or maintaining the product, you must carefully read and understand these instructions, in particular the safety instructions and warnings.

Only **electrically** instructed, trained and authorised personnel may operate, install or maintain the product.
If you have any questions, please contact the manufacturer.

These instructions must be kept to hand at all times.

**NOTICE**

Repairs may only be carried out by the manufacturer or by personnel authorised by the manufacturer. Any unauthorised modification or replacement of components may impair the safe operation of the product.

The housing must remain closed. Otherwise the tightness may be impaired!

## Technical specifications

### General

| | |
|---|---|
| Item numbers | • 18652 - Power supply box for up to 8 QF tower lights |
| Terminal blocks for | • up to 8 Quantec Connectboxes connected in series<br>• Power supply<br>• Brightness sensor (optional with Sync)<br>• Collective error message |
| Conformity | CE, RoHS |
| Standarts | EMC, IEC |

### Electrical specification

| | |
|---|---|
| Rated voltage | 85 to 305V AC / 47 to 440Hz |
| Rated current (output) | 6.3 A (nom. 230 V AC looped) / 0.2 A (24 V DC for communication bus) |
| Overvoltage protection | Class III according to DIN EN IEC 61400-24 |

### Physical characteristics

| | |
|---|---|
| Dimensions (H × W x D) | 118 mm x 239 mm x 100 mm |
| Weight | Approx. 1.100 g |
| IP rating | IP 66 |
| Material | Polyester (housing), polyamide (cable glands), nickel-plated brass (diaphragm), stainless steel A2 (screws), PUR (seal) |
| Mounting | Mounting holes |

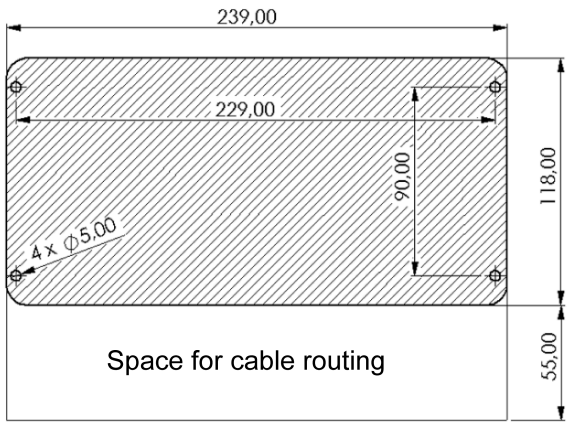


Figure: Drilling pattern Quantec Power supply box (TuFuBox)

## Protection against electrostatic discharge

**NOTICE**

**Electrostatic sensitive components!**

Electrostatic discharges can cause immediate or latent damage to electronic circuits. Quantec Signals products are well protected against electrostatic discharge when used properly. Touching or removing parts, inserting objects into the housing or tampering with the connectors can lead to damage.

To avoid electrostatic discharges, only handle parts that are sensitive to electrostatic discharges in sufficiently earthed and protected areas/working environments. If this is not possible, ground yourself before touching components or connections on the housing of the device.

## Grounding

**⚠ WARNING**

Electrical Hazards!

Ensure that the device is properly earthed.

If the connected devices are not properly earthed, dangerous voltages may occur on the devices in the event of a lightning strike!

Electric shocks caused by lightning strikes can result in death or serious injury.

- The enclosure of the switch cabinet must be correctly earthed.
- Do not connect/disconnect the cable while the appliance is switched on!

## Environmental specification

| | |
|---|---|
| Operating temperature | -40 °C to +55 °C (-40 °F to 131 °F) |
| Storage temperature | -55 °C to +70 °C (-67 °F to 158 °F) |
| Relative humidity | 0 to 100 % |
| Operating altitude | 0 to 2500 m (0 to 8202 ft) AMSL |

## Terminal block X1 (mains)

The Terminal block X1 is used for the power supply.

| X1 | Signal | Function |
|---|---|---|
| 1 | L_IN | Supply |
| 2 | N_IN | |
| 3 | PE | Earth |
| 4 | SHLD | Shield |

## Terminal block X2

The Terminal block X2 provides a collective error message (error in the power supply, error on the tower lights or error in the entire system).

| X2 | Signal | Function |
|---|---|---|
| 1 | NO | |
| 2 | NC | |
| 3 | COM | |
| 4 | PE | Earth |
| 5 | SHLD | Shield |

## Terminal block X3

This terminal block is used to connect the brightness sensor.

| X3 | Cable core | Function |
|---|---|---|
| 1 | BN | Sync |
| 2 | WH | +24 V |
| 3 | BL | 0-10 V Brightness |
| 4 | BK | GND |

## Terminal block X40

The X40 terminal block is used as a connection for Connectboxes connected in series.

| X40 | Signal | Funktion |
|---|---|---|
| 1 | L_IN | 230V supply |
| 2 | N_IN | |
| 3 | 24V_IN | Auxiliary supply |
| 4 | DATA_RETURN | Communication |
| 5 | CLOCK | |
| 6 | DATA_OUT | |
| 7 | LOAD | |
| 8 | PE | Earth |
| 9 | SHLD | Shield |

**NOTICE**

The last ConnectboxMaxi connected in the series must be bridged with a wire between terminals X40.4 and X40.6.