

LED LBOND

TRACY INDUSTRY

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TRACY® INDUSTRY

POWER SUPPLY - RECOMMENDATIONS



This document provides general information and recommendations for power supplies for TRACY® INDUSTRY LIGHTING SOLUTION.

NOTICE:
ALL LOCAL BUILDING CODES AND REGULATIONS MUST BE FOLLOWED AT ALL TIMES WHEN INSTALLING THE LIGHTING SOLUTION.

Carport photo:
Bluetop Solar Parking, RICOH, UK

1 Electrical schematic of TRACY® panel

The light emitting diodes (LEDs) are configured in a parallel configuration within TRACY® panel. Below is an illustration of a panel with two spots (LEDs):

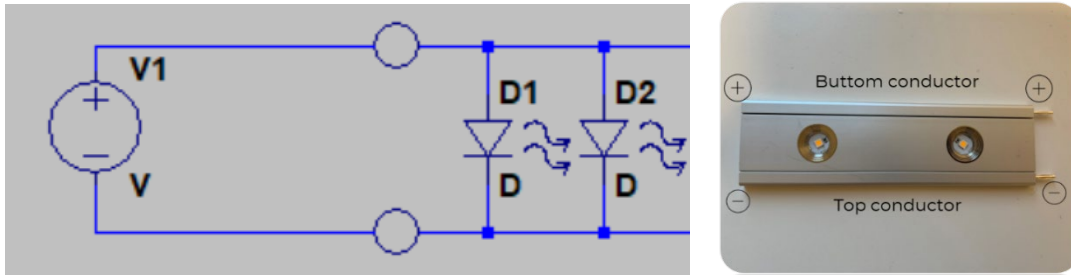


Figure 1 Schematics of TRACY® panel – example with two LEDs.

NOTICE:

- Do not apply reverse voltage to the Panel as the LEDs may be damaged.
- Do not exceed the rated forward voltage (24V or 12V depending on the specific type of panel – see data printed on backside of panel) as the forward current will become large and may damage the LEDs.

For further details on the electrical configuration documentation at:

<https://ledibond.com/btb/>

2 Power supply – recommended specification

The TRACY® panel shall only be used with a power supply having the following characteristics and specifications:

- Direct current (DC)
- “Constant current” operation*
- Voltage limitation**

**Ensure that the total current from the power supply do not exceed the maximum rating for the LEDs in the system of connected TRACY® panels.*

***Maximum 24V or 12V depending on specific type of panel. See specs printed on backside of the panel.*

2.1 Recommended power supplies

The following power supplies are recommended:

Type – 12V	110VAC -12VDC	230VAC -12VDC
MEANWELL		
ELG-75-12A	48W	60W
ELG-100-12A	56W	75W
ELG-150-12A	84W	120W
ELG-200-12A	144W	192W
ELG-300-12A	224W	264W

Type – 24V	110VAC -24VDC	230VAC -24VDC
MEANWELL		
ELG-75-24A	60W	75,6W
ELG-100-24A	70W	96W
ELG-150-24A	105W	150W
ELG-200-24A	150W	202W
ELG-240-24A	180W	240W
ELG-300-24A	255W	300W

Table 1 Meaweill power supplies – type and maximum rated power.

NOTICE: It is recommended to select a power supply that is slightly over-rated for the expected amount of total wattage needed in daily operation. Load only a power supply up to 90-95% of its maximum output rating to ensure highest energy efficiency in the solution and save energy.

2.2 Procedure for power supply configuration and adjustment

NOTICE: The initial adjustment must be done prior to connecting the AC power to the power supply. The procedure is the following:

1. Turn down voltage and current. Marked *Vo ADJ.* and *Io ADJ.* on the back of the power supply. All the way down! (Turn anti clockwise).
2. Connect the driver to string of TRACY® panels and measure the current with a current clamp instrument.

3. Adjust voltage to reach the desired current specified - if level can't be reached go to 4)
4. Adjust the current to the desired level. (See picture 3)
5. When the desired current is achieved, reduce the voltage to a minimum (limitation) without forcing the current to drop below desired level.

Example using Meanwell driver:

