

Self Electronics SLT45-1050IL-E

Self Electronics SLT45-1050IL-E LED Driver User Manual

Brand: Self Electronics

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of the Self Electronics SLT45-1050IL-E constant current LED driver. Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

2. IMPORTANT SAFETY INSTRUCTIONS

Failure to follow these safety instructions may result in electric shock, fire, or serious injury. Keep this manual for future reference.

- **Electrical Hazard:** Always disconnect power from the mains supply before performing any installation, wiring, or servicing.
- **Professional Installation:** Installation and wiring should only be performed by a qualified and licensed electrician in accordance with all local and national electrical codes.
- **Ventilation:** Ensure adequate air circulation around the LED driver to prevent overheating. Do not cover the unit or install it in an enclosed space without proper ventilation.
- **Load Compatibility:** Do not exceed the specified maximum output power (42W) or connect LED loads outside the specified output voltage range (30-42VDC).
- **Indoor Use Only:** This device has an IP20 rating and is designed for indoor use in dry locations only. Do not expose to moisture, water, or high humidity.
- **No User Serviceable Parts:** Do not attempt to open, modify, or repair the LED driver. Refer all servicing to qualified personnel.

3. PRODUCT FEATURES

The Self Electronics SLT45-1050IL-E LED driver offers the following key features:

- Independent operating device
- Protection Class II, SELV (Safety Extra-Low Voltage) output
- Flicker-free design for stable light output
- Constant current output, adjustable via integrated dip switches
- IP20 rated for indoor applications
- Compact dimensions for easy integration

4. PRODUCT OVERVIEW

The Self Electronics SLT45-1050IL-E is a robust and reliable constant current LED driver. Below is an image of the device, highlighting its main components and label information.



Figure 1: Self Electronics SLT45-1050IL-E LED Driver. The product label clearly indicates the model number SLT45-1050IL-E, input voltage range (PRI: 220-240V~), maximum output power (SEC: 42Wmax), output voltage range (30-42VDC), and a table detailing the dip switch settings for adjusting the output current from 700mA to 1050mA.

5. SETUP AND INSTALLATION

Before proceeding with installation, ensure all safety instructions are read and understood. Disconnect power from the mains supply before making any connections.

1. **Mounting:** Securely mount the LED driver in a suitable, dry location that allows for adequate ventilation. The compact size (13.9 x 4.2 x 2.98 cm) facilitates integration into various fixtures or enclosures.
2. **Input Wiring (PRI):** Connect the AC mains supply (220-240V~, 50/60Hz) to the input terminals labeled "PRI (INPUT)". Ensure correct polarity (Live and Neutral) and secure all connections.
3. **Output Wiring (SEC):** Connect your LED load to the output terminals labeled "SEC (OUTPUT)". Verify that the total power consumption of your LEDs does not exceed 42W and that their forward voltage falls within the 30-42VDC range. Observe correct polarity (+ and -) for the LED load.

4. **Current Selection (Dip Switches):** The output current of the driver can be adjusted using the integrated dip switches. *It is crucial to set the desired current before connecting the LED load and applying power to the unit.* Refer to the table below for the correct dip switch configurations.

5.1. Dip Switch Settings for Output Current

Output Current (mA)	Output Power (W)	Switch 1	Switch 2	Switch 3
700mA	30.9W	ON	ON	ON
750mA	31.5W	ON	ON	OFF
800mA	33.6W	ON	OFF	ON
850mA	35.7W	ON	OFF	OFF
900mA	37.8W	OFF	ON	ON
1000mA	42W	OFF	ON	OFF
1050mA	42W	OFF	OFF	ON

Note: "ON" typically means the switch is in the down or closed position, while "OFF" means up or open. Always verify the physical switch orientation on the device.

6. OPERATION

Once the Self Electronics SLT45-1050IL-E LED driver is correctly installed and the desired output current is set via the dip switches, it will operate automatically upon receiving mains power. The driver provides a stable, constant current to the connected LED load, ensuring consistent illumination without flickering. No further user interaction is required during normal operation. The device is designed for continuous use within its specified operating parameters.

7. TECHNICAL SPECIFICATIONS

Parameter	Value
Model Number	SLT45-1050IL-E
Input Voltage (PRI)	220-240V~, 50/60Hz
Max Input Current (I _{max})	0.22A
Output Power (SEC)	Max 42W
Output Voltage (SEC)	30-42VDC
Output Current Range	700-1050mA (adjustable)
V _{omax}	50VDC
Ambient Temperature (t _a)	-25°C to +50°C
Case Temperature (t _c)	Max 85°C

Parameter	Value
Protection Class	II, SELV
IP Rating	IP20
Dimensions (L x W x H)	13.9 x 4.2 x 2.98 cm
Weight	170 grams

8. TROUBLESHOOTING

If you encounter issues with your LED driver, refer to the following common problems and their potential solutions:

- **No Light Output:**
 - Check if the input power supply is connected and active.
 - Verify all wiring connections (input and output) are secure and correct, observing polarity.
 - Ensure the LED load is within the specified voltage (30-42VDC) and power (Max 42W) range.
 - Confirm the dip switch settings match the required current for your LEDs.
 - Test the LEDs with another compatible driver or power source to rule out LED failure.
- **Flickering Lights:**
 - Check for loose connections at both the input and output terminals.
 - Ensure the input voltage is stable and within the 220-240V~ range.
 - Verify the LED load is compatible with a constant current driver and that the current setting is appropriate.
- **Overheating:**
 - Ensure adequate ventilation around the driver. Do not install in an enclosed space without airflow.
 - Verify the ambient temperature is within the operating range (-25°C to +50°C).
 - Confirm the LED load does not exceed the maximum output power (42W).

9. MAINTENANCE

The Self Electronics SLT45-1050IL-E LED driver is designed for long-term, reliable operation with minimal maintenance. To ensure optimal performance and longevity:

- Keep the device clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Ensure that ventilation openings are not obstructed.
- Periodically inspect all wiring connections for any signs of damage, fraying, or looseness.
- Do not attempt to open or repair the unit. Any unauthorized tampering will void the warranty and may pose a safety risk.

10. WARRANTY AND SUPPORT

Self Electronics provides a 1-year availability for spare parts in the EU for the SLT45-1050IL-E LED driver. For technical support, warranty claims, or further assistance, please contact your retailer or Self Electronics directly.

When contacting support, please have your product's model number (SLT45-1050IL-E) and proof of purchase information readily available to expedite the process.

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