

999BPDRSOLID-V2-INT-10-90-EFT-3.5W

ITEM NO. 41523

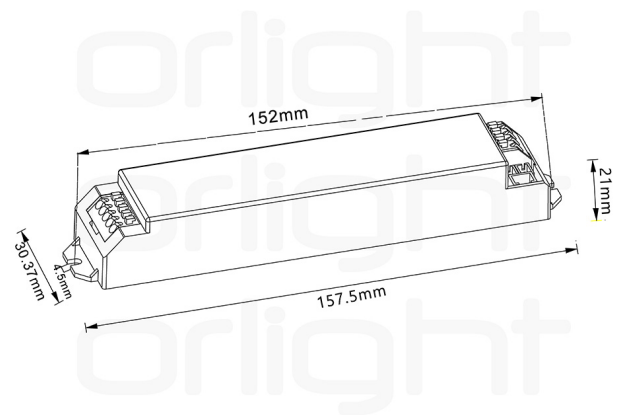
Features

- For LED module with a forward voltage of 10-90Vdc
- Plug-in Lithium Iron Phosphate battery
- Automatic shutdown of output if LED load is out of range
- Constant power output, output current self-adjustable
- 999BPDRSOLID-V2-INT-DALI-10-90-EFT-3.5W is SELV output voltage

Functions

- Maintained/Non-maintained operation
- 3hr rated duration
- Electronic charge system
- Deep discharge protection
- Short-circuit-proof battery connection
- Open-circuit-proof
- Polarity reversal protection for battery

Dimension



Technical Specification

Rated supply voltage	220-240VAC
AC voltage range	144-187VAC
Mains frequency	50/60Hz
Battery charge time	24h
Ambient temperature t_a	5-55°C
Max. Casing temperature t_c	75°C
Type of protection	IP20
In-rush current	3.5A
Mains surge capability (between L – N)	1KV
Maximum withstand voltage	2KV + 4U
Withstand time	60S

1. All specifications are typical on the 230VAC unless otherwise stated.
2. The emergency function test must be performed when a battery is fully charged for 24 hours.

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Battery Discharge & Charge Specification

Parameter	Min.	Typ.	Max.	Note
Output voltage	10Vdc	-	90Vdc	* When #2dial swith been selected to EM 3.5W * Measured at 6.4V input from batteries
Output constant current	30mA	-	300mA	
Emergency power	2.6W	-	3.5W	

Batteries	Emergency Power	Emergency Duration	Charge Current	Charge Time
6.4V/3000mAhLiFePO4 battery	3.5W	3h	210mA	24h

Note: All specifications are typical at 25°C unless otherwise stated.

Functionality test

The 5 second long, each 7 days function test serves to check the functionality of the emergency unit, the batteries and LED module.

Notice

- If a mains supply failure occurs whilst a functional test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed functional test shall re-commence automatically as soon as conditions permit.

Duration test (EN-3hrs)

- Initial duration test (2hrs): The test will be carried out exactly 16 hours later after the initial installation.
- Half year duration test: The test will be carried out on each 180-182days. 2hrs duration test on the first 180-182 days check the capacity of the batteries. 1.5hrs duration test is carried out on the next 180-182 days and yearly to check the capacity of the batteries.

Notice.

- A duration test shall only be started when the battery supply is fully charge if a mains supply failure occurs whilst a duration test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed duration test shall re-commence automatically when the battery supply is fully recharge
- The indicator will be slow flashing Green within 5 days if the duration test be carried out successfully.

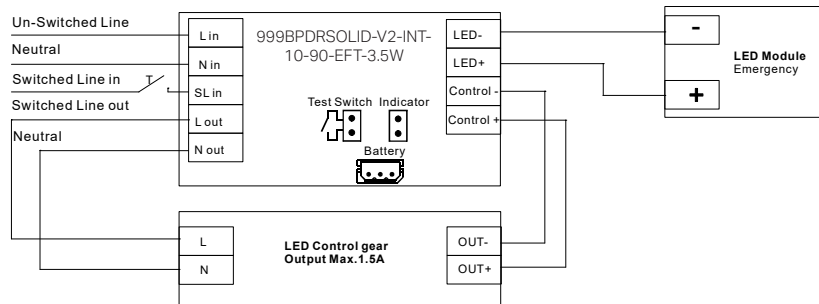
Indicator LED System status is locally by a bi-color indicator LED.

LED Indication	Status	Description	NOTICE Fault status: If an error is detected, the indicator LED switches to RED. If the error has been corrected please re-connecting the battery after the mains power off, the indicator LED immediately switches back to GREEN when mains power on. Battery failed duration test: After an exchange of the battery and holding down the button (>10S) reset the timer, the indicator LED switches to GREEN.
Permanent Green	Standby ,System OK	Mains Operation, battery is charged	
Fast flashing Green (0.25s on 0.25s off)	Function test underway	Function test underway	
Slow flashing Green (1s on 1s off)	Duration test underway	Duration test underway	
Permanent Red	Lamp failure	Open Circuit or Short circuit or LED failure	
Fast flashing Red (0.25s on 0.25s off)	Battery capacity failure	Battery failed duration test	
Slow flashing Red (1s on 1s off)	Battery fault	Incorrect battery voltage or Short circuit or Open Circuit	
Green and Red off	Battery Operation	Emergency mode: Mains disconnected or Mains failure	
Slow flashing Red (1s on 3s off)	Battery temperature error	When power on and battery temperature is above 60 (±2)°C or below 0 (±2)°C	

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Wiring Diagram

The maximum no-load voltage of the drive is 100V (999BPDRSOLID-V2-INT-10-90-EFT-3.5W)



Notice:

With the following cases, the indicator will be off

1. Mains power off, the light goes into emergency mode
2. Battery is disconnect when mains power on
3. Battery be connected again after disconnected when mains power on (Attention: In that case, please re-set the AC mains power)
4. The applicable Led driver should be isolated ,and max. voltage can not over 100V/200V, max. current can not over 1.5A.
5. When the SLin is connected, the LED light is under maintenance, When SLin is disconnected, the LED lights are in a state of no maintenance.

Battery Data

Battery Selection

Emergency power	Batteries	Battery fully charged time	Charge Current	Battery discharge voltage Min-Typ-Max	Battery discharge current Min-Max	Battery output power Min-Max	Emergency Duration
3.5W	6.4V 3000mAh LiFePO4	24h	210mA±10%	5-6.4-7.3V	500-620mA	3.2-3.9W	3h

Note:

Automatically charge when the voltage of a single battery drops below 3.4V. When the voltage of a single battery exceeds 3.6 V, the charger turns off (0mA).

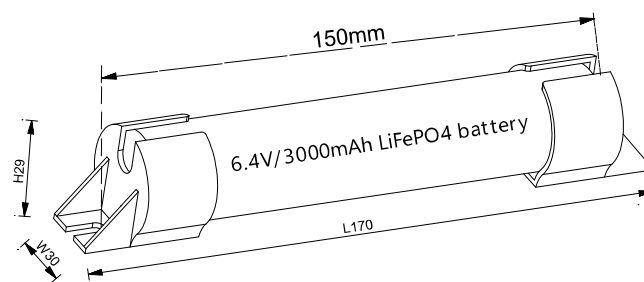
If the battery temperature is above 60 (±2°C) or below 0 (+2°C), the battery will stop charging.

The emergency lighting LED driver will recharge the battery normally after running the test of 61347-2-7 CL22.3 (abnormal operating conditions).

When the voltage of a single battery is below min 2.0 V, the battery will not enter an emergency state.

The minimum charging environment temperature of the battery is 5°C , to ensure that the battery can be charged.

Battery Mechanical Outline



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Battery

- High-temperature grade battery cells
- 6.4V LiFePO4 battery
- Male/female socket for simple connection

LiFePO4 Battery

Case temperature range to ensure 4 years design life	0°C to +60°C
Battery voltage	3.2V per cell
Capacity 18650 /26650	3000mAh

Notice: Storage condition

- The minimum charging environment temperature of the battery is 5°C , to ensure that the battery can be charged to the nominal capacity
- Batteries should be stored within the specified temperature range in low humidity conditions. Optimal storage conditions are:
 - Temperature: -20°C to +40°C
 - Humidity: 45% - 85%
- Avoid atmosphere with corrosive gas
- It is recommended to disconnect the battery before storage or delivery
- Battery should be charged every three months in order to keep it's initial performance

Standard

This product meets the following standards:

- | | | | |
|-------------------|----------------|--------------------|------------|
| • EN IEC61347-2-7 | • EN 61000-3-2 | • EN 61547 | • EN 55015 |
| • EN IEC61347-1 | • EN 61000-3-3 | • EN IEC61347-2-13 | • ROHS 2.0 |

Safety Category	Countries	Standard
AS	Australia	AS/NZS 61347-1/ AS/NZS 61347-2-7

EMC Category	Countries	Standard
C-TICK (EMC)	Australia	AS/NZS CISPR 15

Rohs Compliance

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Status Indication Green LED

- A green LED indicates that charging current is flowing into the battery
- Plug connection 1



Test Switch

- For connection to the emergency lighting unit
- For checking the device function
- Plug connection



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Functionality of the test switch

1. A short press (>1s) on the button start a function test lasting 5 seconds (The battery's capacity should be more than 5%=charging 30mins)
2. Holding down the button(>10s) resets the timer(System-resets)

Service Life

Average life-time 50,000 hours under rated conditions with a failure rate of less than 10% for the emergency converter as rated power. Average failure rate of 0.2% per 1000 operating hours.

Important

It is recommended that the unit is installed by a competent person ensuring the installation complies with the necessary standards.

The company accept no responsibility for incorrect installation, incorrect operation or improper maintenance.

After installation of the fitting, the battery must be charged for 24 hours for duration test.