



### Technical Specifications

Mode of Operation	Non-Maintained
Operating Temperature	10 to 50°C
Input Voltage	220-240 VAC / 50Hz
LED Lamp Power	9W / Bulb
Color Temperature	Warm White (3000K ± 250K) Daylight (6000K ± 250K)
Luminous Intensity	870.8 lm, Warm White 919.4 lm, Daylight
Rated Beam Angle	50°
Battery Type / Capacity	Lithium Iron Phosphate (LiFePO4) 12.8V-4000mAh
Protection Features	- AC, DC Fuse - Battery Low Voltage Cut-Off - Surge Protection
Testing Systems	- Auto Check - Auto Test - Manual Test or Remote Test
Charging Method	3 Steps Charger System
Charging Period	10-15 Hrs
Backup Time	4.0 Hrs
Housing	Plastic ABS Casing and Electro-galvanized steel sheet 1mm. thick
Dimensions (L x W x H)	250 x 80 x 230 mm
Weight	1.86 Kg
Degree of Protection	IP20
Mounting	Wall Surface
Accessory	Infrared Remote Test (RT-S3)
Standards / Compliance	- TIS.902 Part2(22)-2560 - TIS.1955-2551 - ISO9001 - CE

### Product Overview

The MCU-BT Series emergency lighting is equipped with a mobile application for both iOS and Android, enabling seamless connectivity between the device and a smartphone via Bluetooth technology. This allows users to monitor the system's operating status, check battery performance, and configure the automatic system testing, among other functions.

Additionally, it features an innovative 3 Steps Charger system (Patent No. 15955), surpassing conventional charging methods to provide complete protection for the battery charging process.

The system also includes an Auto Check function that monitors key components of the device, such as the battery, light bulbs, fuses, illumination circuits, and the battery charging system. Any malfunctions are promptly reported to ensure the device is always ready for operation, enhancing reliability during power outages.

### Features

#### Bulb

- Highly efficient and super bright 9 Watts LEDs provides maximum brightness while saving on power consumption. It also offers long operational life of more than 50,000 hours

#### Battery

- Use Lithium Iron Phosphate (LiFePO4) 12.8V-4000mAh, backup power for 4 hours. It has the advantages of light weight, long service life and high power. It also causes less pollution

#### Functions

- Auto Check for key components abnormalities such as the battery, bulbs, fuses, lighting circuits, and battery charging system
- Auto Test schedule: 1 month every 15 minutes, 1 year every 120 minutes (according to standard TIS.021004-22), activate and deactivate functions with a remote control
- The operation can be tested manually (Manual Test)
- A 5-second, 30-minute or 60-minute self-test can be performed on the unit using the remote
- Light Detector (LDR) can be enabled to operate during a power outage when the light level is below 5 Lux

#### Circuit Systems

- Controlled by an 8-bit microcontroller circuit
- A Timer Delay circuit to keep the unit operating for a few more seconds once normal power has returned
- Automatic control system activates when the voltage drops (Under Voltage)
- System control via a smartphone application using Bluetooth technology

#### Protection Features

- AC and DC fuse to prevent current overload
- Surge Protection
- IP20 dust and water resistant

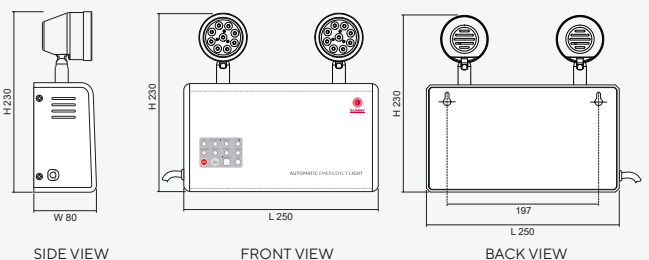
#### Features to Extend Battery Life

- An innovative 3 Steps Charger System
- A Low Voltage Cut-Off to prevent the battery from draining completely
- Continuous monitoring and checking system for the battery charging status
- Battery voltage change rate monitoring system with respect to time (dv/dt)

#### Warning Systems

- An LED will blink once every 15 seconds, accompanied by an audible alarm, to indicate that the system is about to stop functioning due to a low battery (Battery Low)
- An LED will blink 3 times every 15 seconds to indicate that the system performs a battery test and detects that the backup lighting emergency duration is less than specified testing time (Battery fail)
- An LED will blink 4 times every 15 seconds to indicate that there is a problem charging the battery (Charging Fail)
- An LED will blink 5 times every 15 seconds to indicate that an abnormality in the lighting system (Lighting Fail)

### Dimensions (mm)



### Indicators

LED AC	► Indicates input status
LED Charge/Full	► Indicates charging status
LED Battery	► Indicates the system is ready for operation
LED Fail	► Indicates a system malfunction
LED 5 sec/LDR	► Indicates the 5-second system test status and the status of the light detection sensor operation
LED 30 mins	► Indicates that the 30 minutes test is enable
LED 60 mins	► Indicates that the 60 minutes test is enable
LED Auto Test	► Indicates the status of the automatic battery test
Switch Off	► Used to turn off the test and shut down the system
Switch Test	► Used to test the readiness of the system (while plugged in)
IR receiver	► Infrared signal receiver from the infrared remote
LDR	► Light detector sensor

