



- Non maintained, DALI and self test types
- Available as an easy to use conversion kit or enclosed metal casing system.
- Individual inverters also available for OEM users or advanced installations
- 3 hours maintained current output
- Integrated electrical protection
- Automatic current regulation to maintain light output for 3 hour duration

## Range Overview

The Serenity Tendo® emergency lighting range is designed to equip a wide range of LED fixtures with an emergency feature. The Tendo is suitable for most standard LED luminaires and arrays containing from 2 to 20 LEDs in series (6 to 55V DC).

The Tendo range is designed to be inserted into the low voltage connection between the mains LED driver and LED fixture allowing LEDs to be operated as normal under mains healthy conditions or at a reduced light output in emergency mode.

The Tendo range automatically adjusts the output LED current to provide the best match between the battery and the load, providing maximum illumination whilst ensuring full battery duration. The Tendo range is compatible with a wide range of LED emitters and arrays such as Philips Fortimo ranges, Bridgelux COB ranges, Citizen

4-41W ranges, GE Infusion, Xicato and many others.

The system is available as a conversion kit of required parts to fit in your own housing, a self contained option with the parts installed in a metal chassis or as individual inverters only.

The inverter/charger module is housed in a standard HRN sized case and comes complete with 8 way and 4 way terminal blocks. The enclosed options come with flying leads to insert within your system and mains supply. These allow connection of unswitched 240V supply, charge indicator LED, two leads in from the maintaining LED driver, and two out to the LEDs themselves. Additional connections are available on the conversion kits and individual inverters.

For complete details on installation and maintenance please refer to product user guide.

### All versions

- 2 - 20 LED's in series (6 - 55V)
- 2 pole changeover relay
- Deep discharge protection
- Compact HRN enclosure (inverter only)
- In built constant current charge circuit
- High temperature NiCd cells
- Automatic adjustment of LED current to maintain 3 hours of illumination
- Available as a kit or system enclosed in a tough metal enclosure

### DALI

- Complete DALI functionality (to IEC 62386-202: Self contained emergency lighting)
- Automatic operational and monitoring tests over DALI network to BS 5266 (BS EN 50172)
- Defaults to self test if not on a DALI network
- Pre-programmed tests: 3 hour commissioning, monthly 30 second function and annual 3 hour tests
- Scheduling available through DALI network
- Test results reported via LED indicators and DALI network

### Self Test

- Microprocessor controlled self test circuit built in
- Pre-programmed tests: commissioning test, monthly function test and annual 3 hour test
- Annual test in accordance with BS 5266
- LED indicator displays charging status, test status and fault indication when appropriate.



# Technical Specifications

## Output

LED voltage range: 6 - 55V  
 Number of LED's in series: 2 - 20  
 LED current limit: 320mA  
 LED voltage limit: 55V

Mains power: 5W  
 Power factor: 0.9  
 Mains frequency: 50Hz

Battery pack: 3 x 4Ah D cell NiCd or NiMH on request  
 Battery cut off voltage: 3.0V

## Input

Mains supply voltage: 230 - 240VAC

## Battery

Battery current limit: 1100mA  
 Charge current: 200mA nominal  
 Recharge period: 24 hours

## Environmental

Operating temperature range: 0°C to 50°C  
 Maximum case temperature: 70°C  
 Maximum battery temperature: 55°C

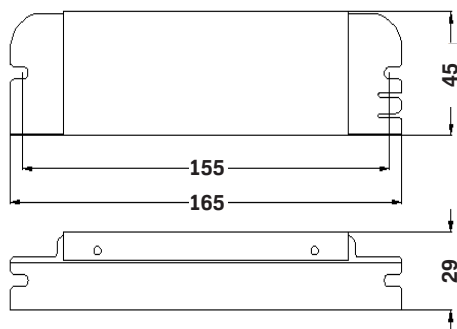
## Maintained output current

Approx LED DC voltage	5.5	8.3	11	13.8	16.5	19.3	22	24.8	27.5	30.3	33	35.8	38.5	41.3	44	46.8	49.5	52.3	55
Maintained current output (mA)	310	250	200	170	145	125	110	100	90	80	75	70	65	60	55	50	47	45	43

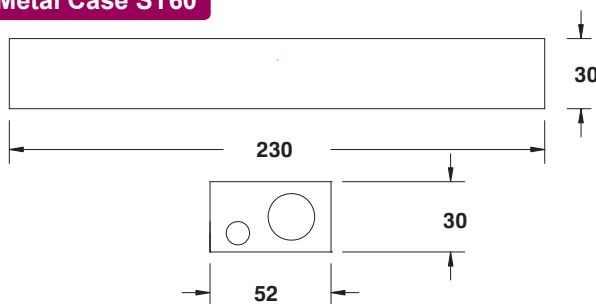
The output current will be dictated by the forward voltage of the maintained LED array. The above values are approximate as exact voltage and current will vary between applications.

# Dimensions

## Inverter Only



## Metal Case ST60



- All dimensions in mm
- Flying leads not shown

# Order codes

Part number	Type	Output
EM-INVKIT-3C-6-55V	Tendo Emergency Inverter/Battery kit Non-maintained	6-55V
EM-INVKIT-3C-6-55V-STEST	Tendo Emergency Inverter/Battery kit Self Test	6-55V
EM-INVKIT-3C-6-55V-DALI	Tendo Emergency Inverter/Battery kit DALI	6-55V
EM-ST60-3C-6-55V	Metal Emergency pack Non maintained 43-230mA	6-55V
EM-ST60-3C-6-55V-STEST	Metal Emergency pack Self Test for 43-230mA	6-55V
EM-ST60-3C-6-55V-DALI	Metal Emergency pack DALI for 43-230mA	6-55V
EM-INV-3C-6-55V	Tendo Emergency Inverter Non maintained (for 3cell)	6-55V
EM-INV-3C-6-55V-STEST	Tendo Emergency Inverter Self Test (for 3cell)	6-55V
EM-INV-3C-6-55V-DALI	Tendo Emergency Inverter DALI (for 3cell)	6-55V
EM-LED-HOLDER	Recessed Plastic Holder for LED charge indicator	6-55V

When ordering a module for use with any luminaire from the Serenity range simply suffix the part code with '-EM'. The optimum module will be selected by our engineers and supplied with the product.



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Serenity products are covered by a worldwide patent portfolio. For more information please refer to [www.serenitylighting.co.uk](http://www.serenitylighting.co.uk)