

ELEDD MIDI 300L

LiFePO₄ Emergency Conversion Solutions



Images are for illustrative purposes only

ELEDD MIDI 300L



Compact LiFePO₄ Emergency Conversion Solutions

The ELEDD MIDI 300L range of LED lithium emergency drivers have been designed to enable conversion of general lighting for emergency operation.

The range comprises pre-wired kits containing a driver, a battery, the battery mounting accessories, and LED indicator. All components are also available to order individually.

Each variant has controlled current outputs, suitable for driving multiple power LEDs or multi-chip LED arrays with forward voltages (V_f) of 50V to 300V, and built-in adaptability that allows for optimum output current based on the forward voltage of the specific light engine for a more precise match to the controlled LED scheme. The range includes options for standard and DALI-2* technology to drive 3-hour rated emergency duration.

LiFePO₄ Emergency Conversion Solutions for LED Loads

Key features:

- Fully kitted emergency conversion packs
- Self-contained emergency lighting LED driver
- DALI-2* level interoperability
- Compatible with LED modules with a forward voltage 50-300V
- Low profile casing with optional strain relief kit
- Constant power output
- Deep discharge protection
- Intelligent battery management
- 3-hour rated emergency duration

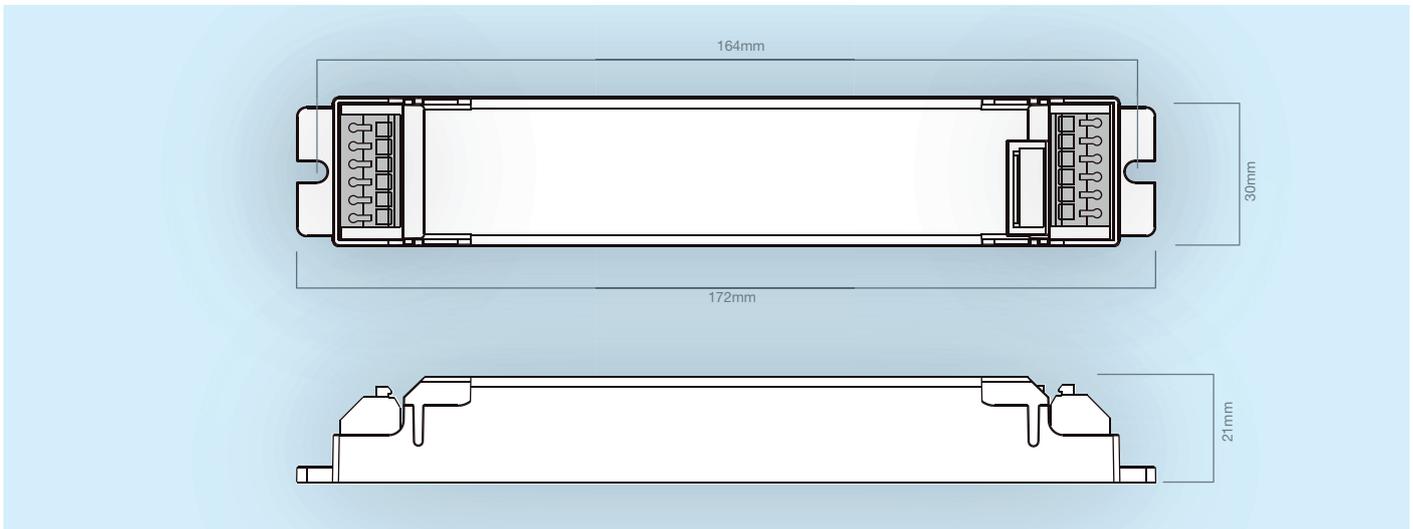




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Dimensions



Driver Specification

Supply voltage	:	220 - 240 V
Supply frequency	:	50/60 Hz
Supply current max	:	40 mA
Power factor	:	0.7
Input power	:	3.5 - 4.0 W
Output voltage	:	50 - 300V
LED current		
2.3 W	:	7 - 60 mA
3 W	:	8 - 65 mA
4 W	:	11 - 95 mA
Ambient temperature (ta)	:	0°C to +55°C
Max case temperature (tc)	:	+70°C
Conductor size	:	0.5 to 0.75mm ²
Battery charge voltage	:	3.4 - 3.6 V
Battery discharge voltage	:	2.8 - 3.6 V
Emergency LED Power	:	2.3 W / 3W / 4 W
Response time	:	< 500 ms
Emergency duration	:	3 hours
Initial charge period	:	24 hours
Maximum recharge	:	16 hours
Weight of control gear	:	72g

Relevant Standards

EN 61347-2-7
EN 61347-2-13
EN 60598-2-22
BS 5266-1
EN 62034
EN 62386
EN 62384
ICEL 1004
EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61547

Batteries

ELEDD MIDI 300L is available with a range of LiFePO₄ rechargeable battery options. For 1 hour emergency operation, please contact Mackwell for further details.

Features

Origin 2.0 is an intelligent technology platform with diagnostic capabilities that enables it to understand and control the effects of environmental factors on the efficiency and reliability of these emergency drivers.

Battery Charge Management applies an intermittent charging duty cycle designed for use with LiFePO₄ batteries. This provides energy efficient charging maintenance, reduced operating temperatures and optimum service life of LiFePO₄ batteries.

Technology Options

Standard

For applications where self-testing is not required or suitable, the non-AutoTest® option provides the same quality and performance expected of Mackwell products, without the AutoTest® feature.

DALI & DALI-2*

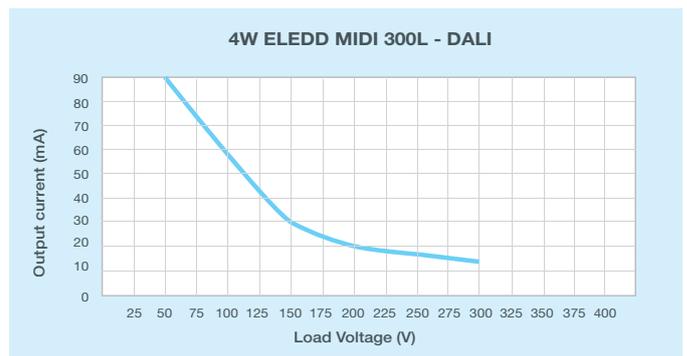
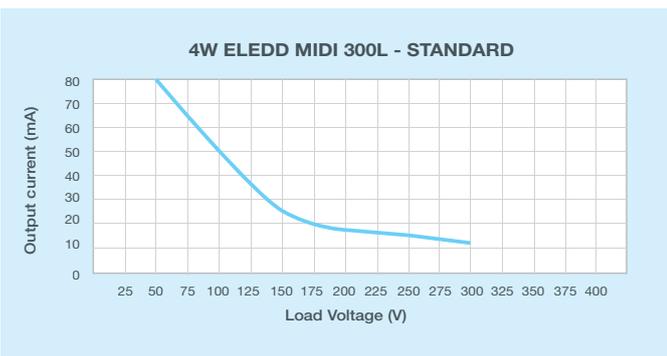
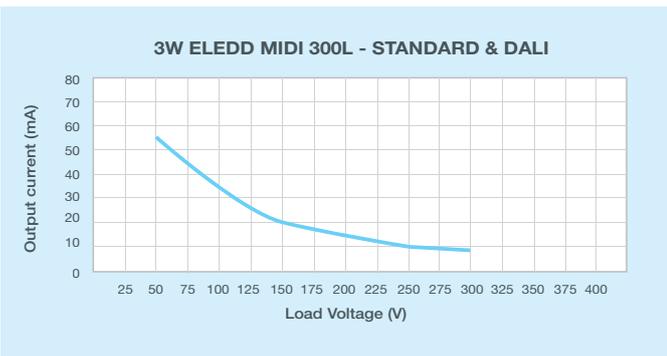
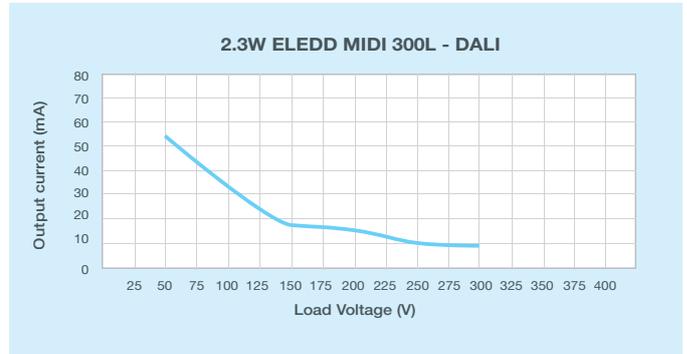
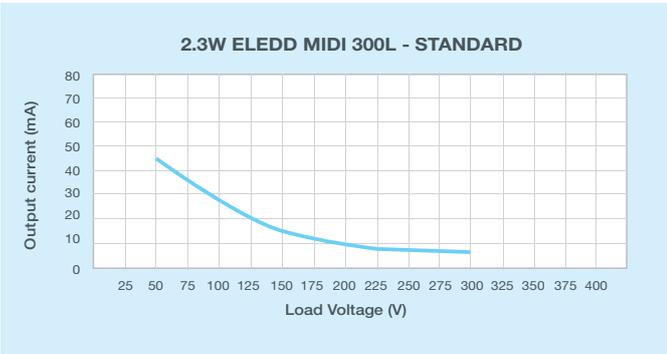
DALI provides benefits by enabling testing and monitoring of an emergency lighting system via a standardised protocol, either on-site or via an internet connection. DALI is ideal for monitoring larger buildings and multiple sites. DALI-2 is the new generation of the standard that has now been extended to include emergency lighting. This improves interoperability and in future will introduce sophisticated diagnostic capabilities. All DALI products default to standalone AutoTest when not connected to a DALI network.

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Output Current



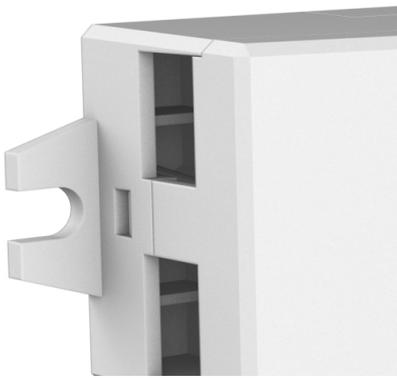


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Battery compatibility chart

Technology	Type	Article Number	LiFePO ₄	LiFePO ₄	LiFePO ₄
			3.6Ah 1C 26650 9006579 (IFpR 26/65/E)	4.5Ah 3C 18650 9006249 (IFpR 19/66/E)	7.2Ah 2C 26650 9006580 (IFpR 26/65/E)
Standard	2.3W	9006572	●		
	3 W	9006246		●	
	4 W	9006576			●
DALI	2.3 W	9006574	●		
	3 W	9006248		●	
	4 W	9006578			●



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Order codes

Standard Conversion Kits**

Order Code	Description
9006542	ELEDD MIDI 300V 2.3W LiFePO ₄ 3H Conversion Kit
9006553	ELEDD MIDI 300V 3W LiFePO ₄ 3H Conversion Kit
9006562	ELEDD MIDI 300V 4W LiFePO ₄ 3H Conversion Kit

DALI/DALI-2* Conversion Kits**

Order Code	Description
9006548	ELEDD MIDI 300V 2.3W LiFePO ₄ 3H Conversion Kit
9006557	ELEDD MIDI 300V 3W LiFePO ₄ 3H Conversion Kit
9006568	ELEDD MIDI 300V 4W LiFePO ₄ 3H Conversion Kit

Standard

Order Code	Description
9006572	ELEDD MIDI 300V 2.3W LiFePO ₄ 3H
9006246	ELEDD MIDI 300V 3W LiFePO ₄ 3H
9006576	ELEDD MIDI 300V 4W LiFePO ₄ 3H

DALI/DALI-2*

Order Code	Description
9006574	ELEDD MIDI 300V 2.3W LiFePO ₄ 3H
9006248	ELEDD MIDI 300V 3W LiFePO ₄ 3H
9006578	ELEDD MIDI 300V 4W LiFePO ₄ 3H

Batteries

Order Code	Description
9006579	Battery LiFePO ₄ 3.6Ah Single Cell 26650 with Mounting Accessory
9006249	Battery LiFePO ₄ 4.5Ah 3 Cell 18650 Stick with Mounting Accessory
9006580	Battery LiFePO ₄ 7.2Ah 2 Cell 26650 Stick with Mounting Accessory

LED Indicators

Order Code	Description
9006250	450mm Diffused Green LED - Standard
9006251	450mm Diffused Bi-Colour LED - DALI

Spares & Accessories

Order Code	Description
9006530	Driver Terminal Cover / Strain Relief Kit

* DALI variants are available now. The DALI-2 versions are currently under development.

Mackwell maintains a policy of continuous development and reserves the right to change the details shown on this data sheet without prior notice.

The contents are intended for guidance only.



Other variants may be available on request. Contact your Mackwell sales representative for further information.

** Conversion Kits contain a driver, battery with mounting accessory and LED indicator as standard.

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