

DALI-2 Constant Current LED Driver for Track System

HED5040

Dimmable & Constant Current

HYTRONIK®



Product Description

HED5040 is a DALI-2 dimmable LED driver for the track system, with 3-phase dial and maximum power output of 40W. The installation only requires simple insertion into the track. HED5040 has a DALI-2 dimming interface, is ideal for both direct track light projects and new luminaires designed for lighting manufacturers.



Hardware Features

Flicker free (1-100%)

Active PFC design

Logarithmic Dimming

Linear Dimming

Configurable constant current (CC) output via DIP switch

Open-circuit Protection

Short-circuit Protection

Overload Protection

5-year warranty

Technical Specifications

Input	
Mains Voltage	220~240VAC 50/60Hz
Mains Current	0.215~0.195A
Power Factor	0.95
Max. Efficiency	88%
Psb/Pno	<0.5W

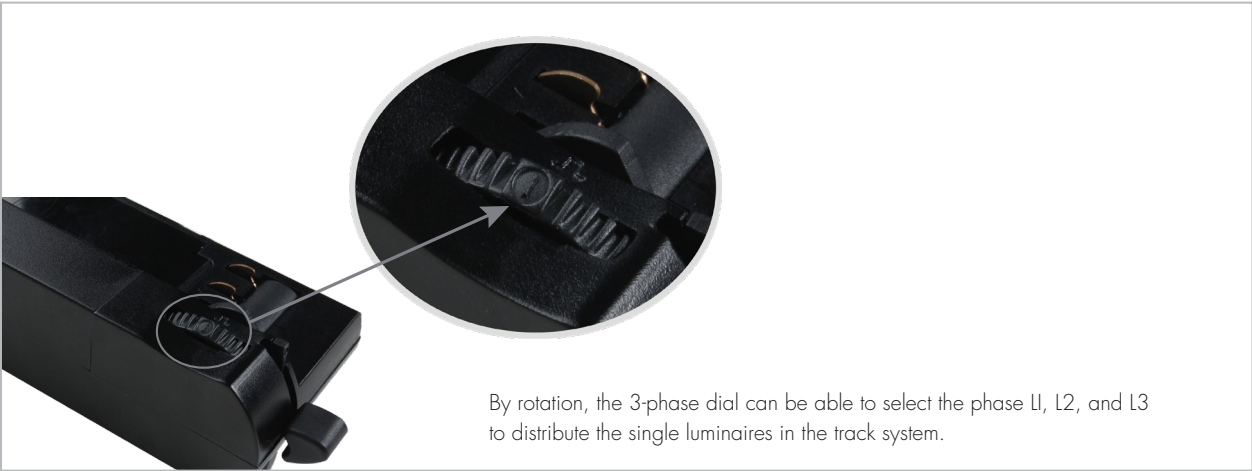
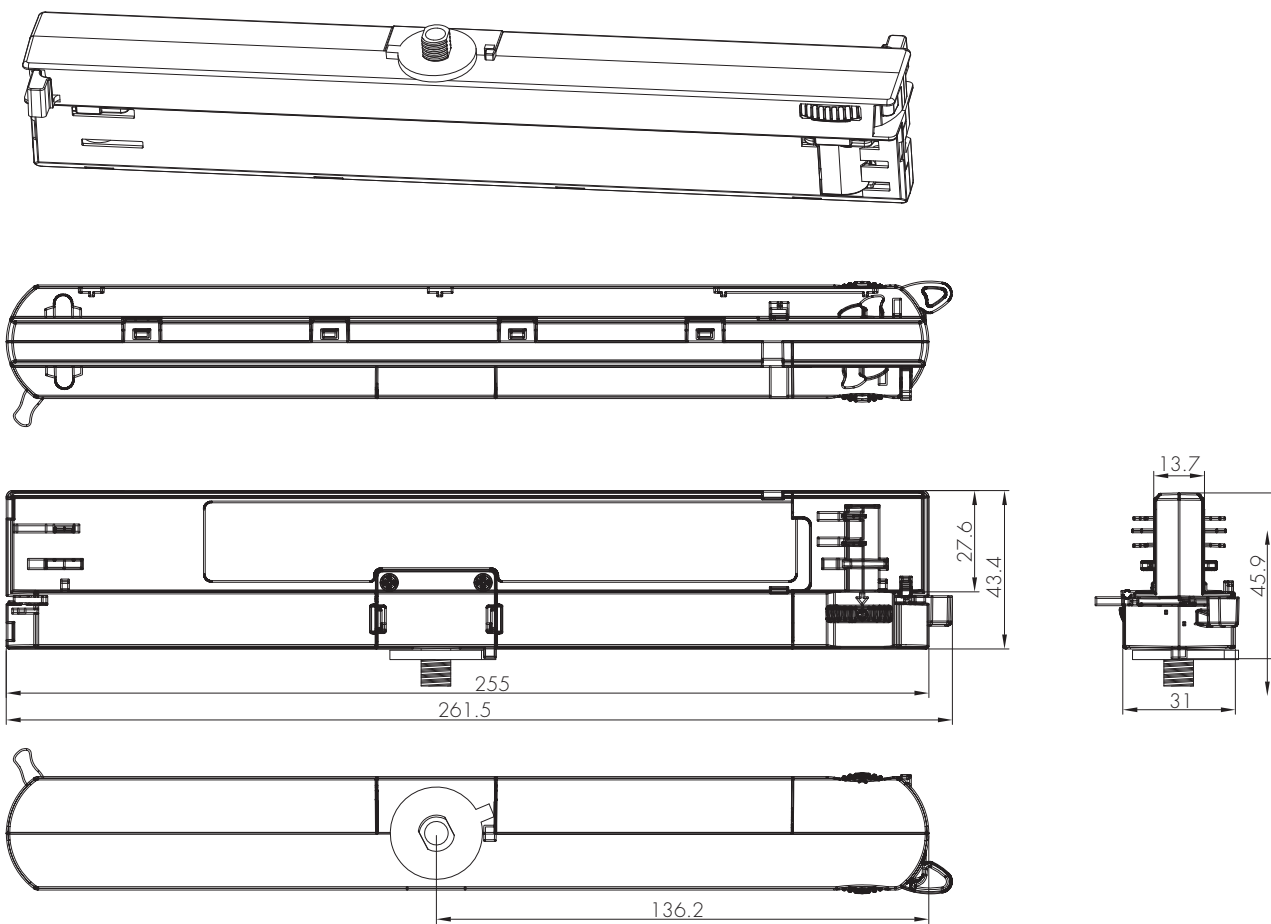
Output	
Output Current	350mA~1050mA
Output Voltage	6~42V
Uout Max.	60VDC

Environment	
Operation Temp.	-10 ~ +35°C
Case Temp. (Max.)	85°C
Storage temperature	-40°C ~ +70°C
Relative humidity	10~ 90%
IP Rating	IP20

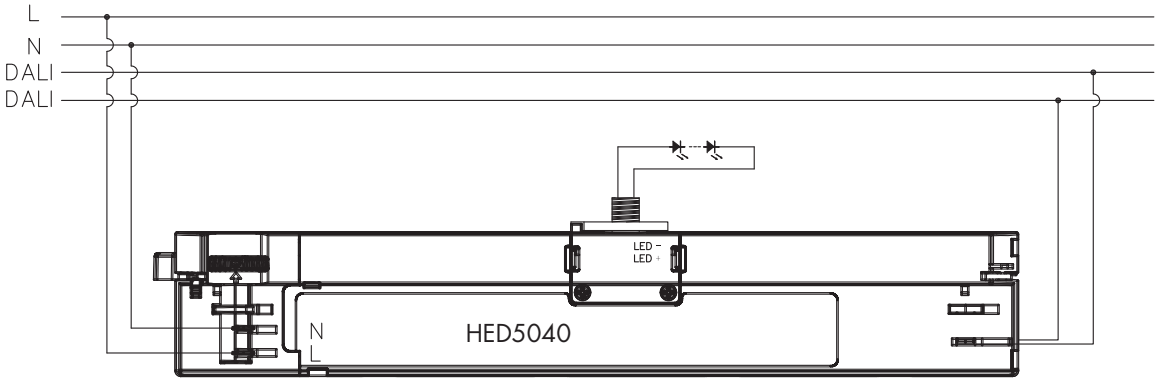
Safety and EMC	
EMC Standard	EN55015, EN61547, EN61000-3-2/-3-3
Safety Standard	EN62493, EN61347-1, EN61347-2-13
Certification	CE, RED, RCM, UKCA
Abnormal protection	Output short-circuit protection Overload Protection Open-circuit Protection

Max. output power/current/voltage range	
HED5040	2-15W/ 350mA /6-42VDC 2.5-17W/400mA/6-42VDC 2.5-19W/450mA/6-42VDC 3-21W/500mA/6-42VDC 3-23W/550mA/6-42VDC 3.5-25W/600mA/6-42VDC 4-27W/650mA/6-42VDC 4-29W/700mA/6-42VDC 4.5-32W/750mA/6-42VDC 5-34W/800mA/6-42VDC 5-36W/850mA/6-42VDC 5.5-38W/900mA/6-42VDC 6-40W/950mA/6-42VDC 6-40W/1000mA/6-40VDC 6-41W/1050mA/6-39VDC

Mechanical Structure & Dimensions



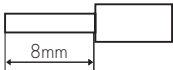
Wiring Diagram



Wire Preparation



0.4 - 0.75mm²



To make or release the wire from the terminal, use a screwdriver to push down the button.

Output Configuration

1050mA	●	●	●	●
1000mA	●	●	●	○
950mA	●	●	○	○
900mA	●	●	○	○
850mA	●	○	●	●
800mA	●	○	●	○
750mA	●	○	○	●
700mA	●	○	○	○
650mA	○	●	●	●
600mA	○	●	●	○
550mA	○	●	○	●
500mA	○	●	○	○
450mA	○	○	●	●
400mA	○	○	○	●
350mA	○	○	○	○
	1	2	3	4



 Warning: Please make sure the correct current is selected before the driver is powered!

Loading and In-rush Current

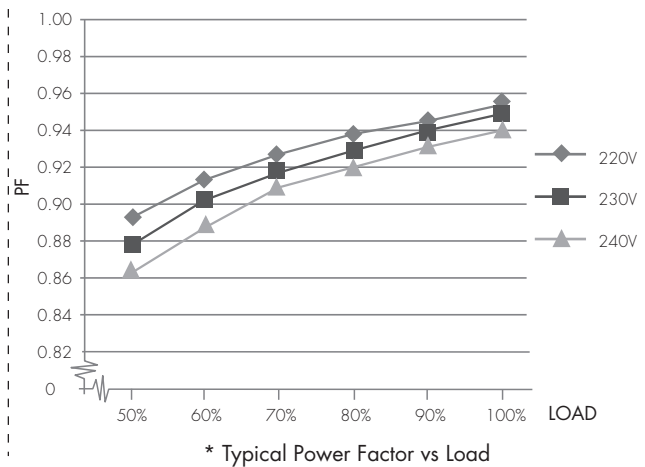
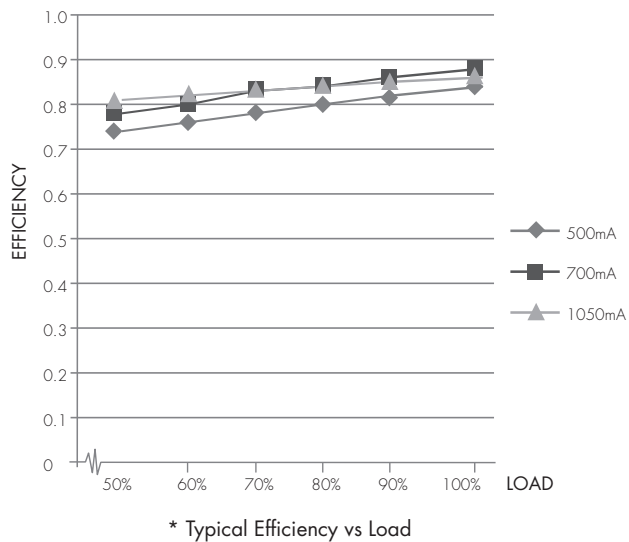
Model	HED5040
In-rush Current (Imax.)	7.5A
Pulse Time	30 μs

Circuit Breaker Information

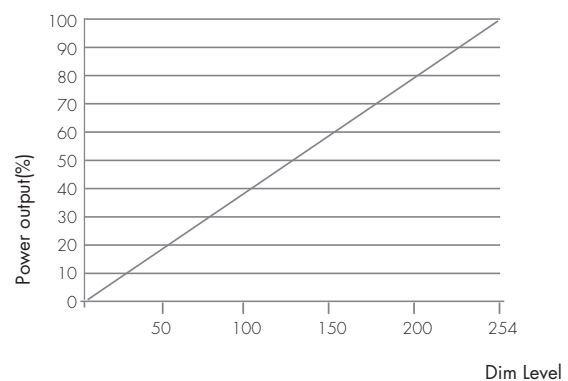
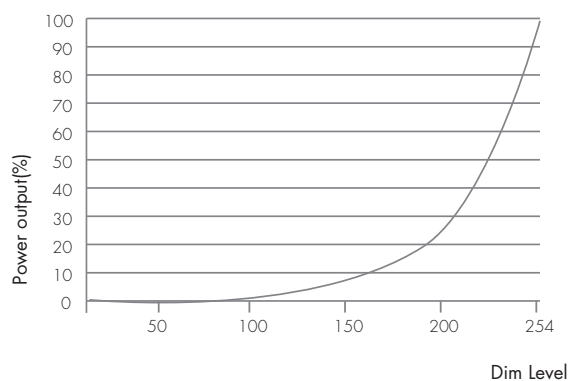
Automatic circuit breaker type	B16A	B10A	B13A	B20A	B25A
HED5040	47	29	38	58	73

The data above is calculated according to the formula: $\text{Maximum Amount} = 16 / (P_n / 230)$. In order to provide a more reliable reference in real application, the data have been revised to take 60% of the number calculated, i.e. $16 / (P_n / 230) \times 60\%$. Please kindly take note that the calculation is based on ABB circuit breaker series S200. Actual values may differ due to different types of circuit breaker used and installation environment.

Performance Characteristics



Dimming Characteristics



Commissioning Instructions and Precautions

A. Installation Preparations

1. This product should be installed by a qualified electrician.

B. DALI-2 Compliance

2. This product has been tested in accordance with IEC 62386 and complies with the relevant DALI-2 application parts. DALI-2 testing was performed using the official DALI test sequence software (version 2.4.0.0), covering the applicable IEC 62386 parts (e.g. Part 101, Part 102, Part 207). DALI-2 certification verifies compliance within the defined test scope. However, certification does not eliminate the possibility of system-level compatibility issues arising from differences in device implementation or system design among manufacturers. Therefore, functional verification and on-site testing are required as part of the final system commissioning to ensure proper operation and compliance with project requirements.

Warning: For additional important documents, including installation precautions, product guidelines, and guarantee conditions, please refer to <https://hytronik.com/service/downloads>

Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to <https://hytronik.com/product/hed5040>
2. Regarding precautions for PIR Sensors installation and operation, please kindly refer to <https://hytronik.com/service/downloads> (PIR Sensors Precautions for Product Installation and Operation)
3. Regarding Hytronik standard guarantee policy, please kindly refer to <https://hytronik.com/service/downloads> (Guarantee Conditions document)