

EUP50AD-1HMC-M (100100130101)

Summary

EUP50AD-1HMC-M is a constant current output mode LED driver. Support DALI dimming function, Touch DIM (Push DIM) function, 0/1-10V Dimming function. The output and dimming circuit are also completely in accordance with the new regulations with isolation to ensure the users and luminaire system during installation.

Product Features

- Single channel constant current output
- Support DALI2.0 dimming function, Touch DIM (Push DIM) function, 0/1-10V Dimming function
- Dimming range: 0.1-100%, Dimming effect smooth, no flicker
- Protections: Short circuit, Over load
- Suitable for indoor LED lighting application



Application



Downlight

Panel Light

Spotlight

Ceiling Light

Decorative Light

Floor Light

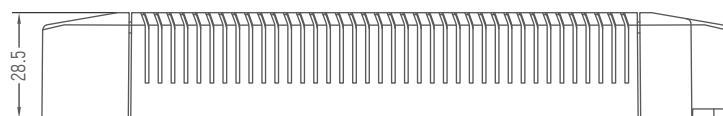
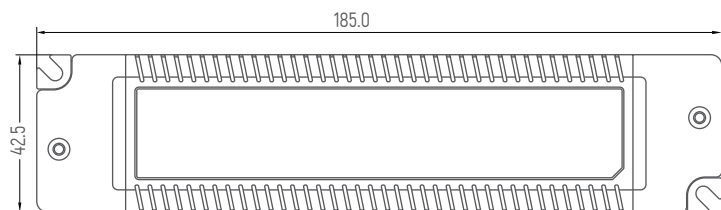
Track Light

Flood Light

Technical Paramaters

Model	EUP50AD-1HMC-M				
Input	Efficiency	≥88%@230VAC, Full load			
	Voltage	220VAC-240VAC			
	Frequency Range(Hz)	50/60Hz			
	Power Factor	>0.95@230VAC, Full load			
	THD(full load)	<10%@230VAC			
	AC Current(max)	0.31Amax@230VAC			
	Standby power	<0.5W			
	Inrush Current(max)	Cold start, <30A@230VAC			
Output	Current/Voltage/Power	800mA/9-45V/36W 900mA/9-45V/40.5W	1000mA/9-45V/45W 1050mA/9-45V/47.25W	1100mA/9-45V/49.5W 1200mA/9-41V/49.2W	1300mA/9-38V/49.4W 1400mA/9-36V/50.4W
	Ripple Current	<3%			
	Channel	1			
	Voltage Tolerance	±5%			
	Turn on delay Time	<1s, at 230Vac			
Function	Dimming Type	0/1-10V DIM/Touch DIM (Push DIM)/RX/PWM			
	Dimming Range	0.1%-100% Dimming to off			
Protection	Short Circuit	Connect the LED power positive output and LED negative output terminal, together			
	Over Load	When the output voltage is exceeded, the output current decreases and, recovers automatically when the load is reduced.			
Safety & EMC	Surge	L-N>1KV			
	Withstand Voltage	I/P-O/P: 3750VAC/1min/10mA;			
	DALI Standard	IEC 62386-101: 2014, IEC 62386-102: 2014; IEC 62386-207: 2009, DALI 2.0			
	Safety Standards	EN61347-1, EN61347-2-13			
	EMC Eission	EN55015, EN61000-3-2, EN61000-3-3			
Others	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547			
	Working Temp., Humidity	-20°C~50°C, 20-50%RH			
	Storage Temp., Humidity	-40°C~85°C, 5-70%RH			
	Tc	90°C			
	Material	PC			
	IP Rating	IP20			
	Lifetime	50,000h@tc:80°C			
	Warranty Condition	5 Years			
	Switch Cycle	>25,000 tims			
	Pack Information	Net weight: --g±5%/PCS; 50PCS/Carton; --kg±5%/Carton; Carton Size: 430*306*168mm(L*W*H)			
	Dimension	185*42.5*28.5mm(L*W*H)			

Dimension(mm)



Wiring Diagram



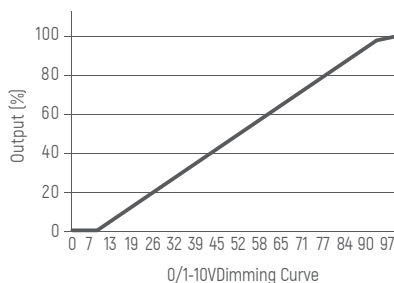
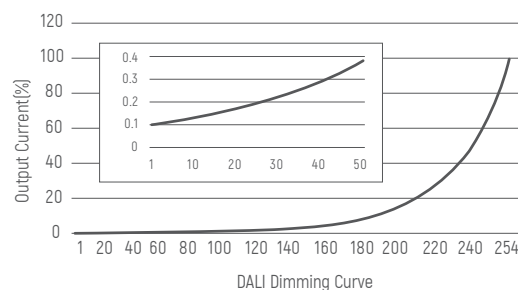
Current Selection Table

EUP50AD-1HMC-M is a multi-current dimming driver, output current level selectable by DIP S.W., as the following:

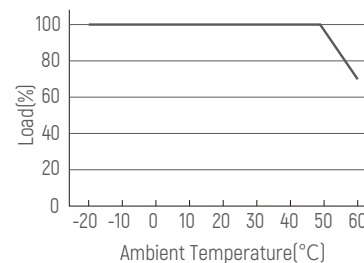
ON	OFF	1	2	3										
Irated		800mA	900mA	1000mA	1050mA	1100mA	1200mA	1300mA	1400mA					
Output		9-45V	9-45V	9-45V	9-45V	9-40V	9-41V	9-38V	9-36V					

Remark: Function default setting is: 800mA (@switch are all OFF state)

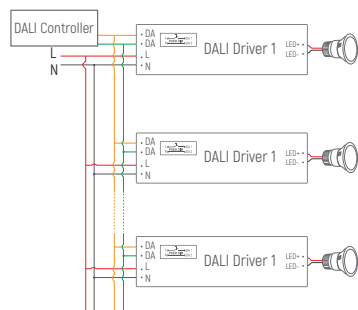
Dimming Curve



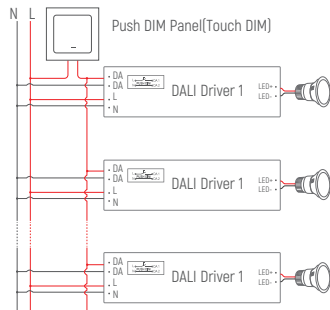
Derating Curve



DALI Diagram



Touch DIM(Push DIM) Diagram



Remark: Only use open push button without indicator light. Maximum cable length between each Unit: 20 meters.

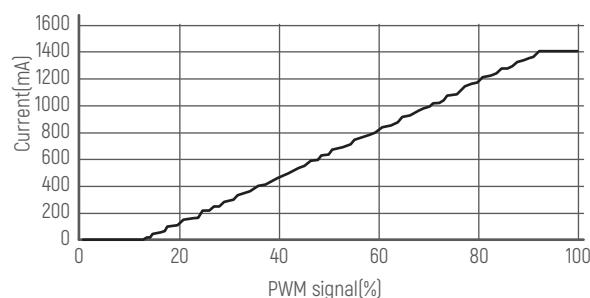
Push DIM Function

1. Press the Touch DIM (Push DIM) switch for 8s or more, the driver can be controlled via Push DIM switch.
2. Short press the Touch DIM (Push DIM) switch (<0.5s) to control the lamp on or off.
3. Long press the Touch DIM (Push DIM) switch (>0.5s) to dim the brightness of light. The dimming direction will change every time after pressing switch.
4. Double-click the Touch DIM (Push DIM) switch (<0.3s), then all lamps connected on the device will be set maximum brightness.
5. The brightness adjustment range is 1%-100%, and the light can be turned off through short pressing when doing the adjustment with long pressing Push DIM switch.
6. With the Power off memory function, the power-down state will be recovered when power on again.

Cautions

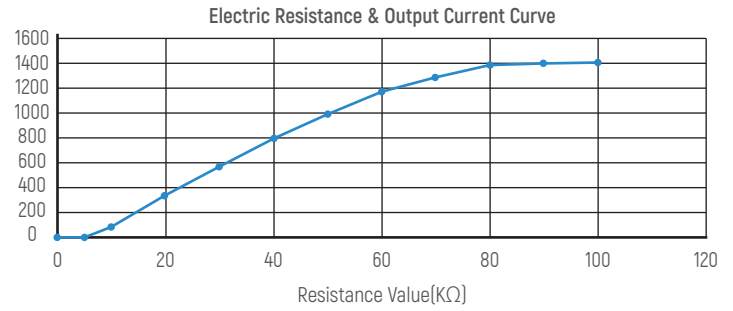
1. This product should be installed by qualified personnel.
2. This product is non waterproof, need to avoid sun and rain. In case of outdoor use, please ensure it is mounted in a water proof enclosure.
3. Good heat dissipation conditions extend product life. Please install the product in a well-ventilated environment.
4. Please make sure LED power supply output voltage, current is used to meet the product requirements.
5. Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector.
6. Due to safety concerns, PVC or rubber cord of 0.75-1.5mm² is recommended for input and output terminal(s) (excluding signal terminals). Flat power cord is not suitable. Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
7. In case of malfunction, do not repair it yourself.

PWM Curve



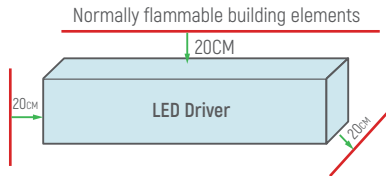
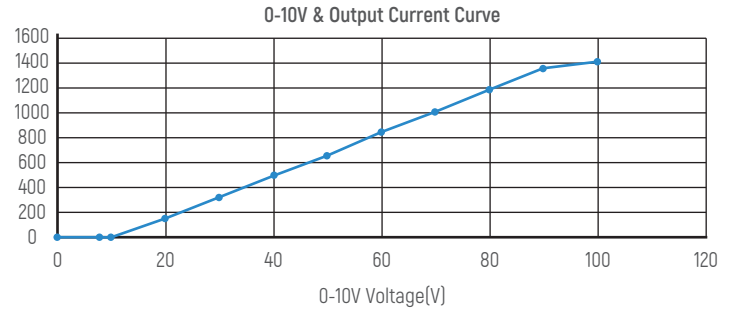
Electric Resistance & Output Current

Resistance value(K Ω):	0	5	10	20	30	40	50	60	70	80	90	100
Output Current(mA):	0	0	83	339	568	791	988	1169	1283	1376	1395	1402

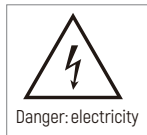


0-10V & Output Current

0-10V(V):	0	0.8	1	2	3	4	5	6	7	8	9	10
Output Current(mA):	0	0	5	143	315	479	656	845	1009	1183	1356	1402



Dimming circuit (FELV circuit) shall be insulated from the input by basic insulation;
 Dimming circuit (FELV circuit) shall be insulated from the output by supplementary insulation;
 Dimming circuit (FELV circuit) shall be insulated from the earthed conductive parts by functional insulation.



Instructions shall be provided with controlgear that have FELV control terminals that state the following:
 Warning: FELV terminals marked "Risk of electric shock" are not safe to touch.
 Warning: Circuits connected to any FELV control terminal shall be insulated for the LV supply voltage of the controlgear and any terminals connected to the FELV circuit shall be protected against accidental contact.

EUP50AD-1HMC-M (100100130101)

概述

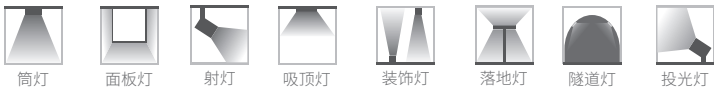
EUP50AD-1HMC-M是一款恒流输出模式LED驱动器。输出和调光电路完全符合新规定，隔离，确保用户和灯具系统在安装过程中使用。

产品特点

- 单通道恒流输出
- 支持DALI2.0调光功能, 触摸调光[按键调光]功能, 0/1-10V调光功能
- 调光范围：0.1-100%, 调光效果平滑，无闪烁
- 保护：短路、过载
- 适用于室内LED照明应用，如筒灯、聚光灯、面板灯等

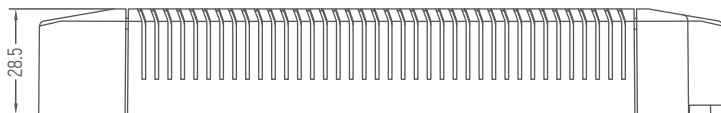


应用



技术参数

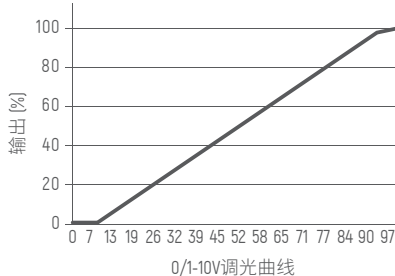
产品型号	EUP50AD-1HMC-M				
输入	效率	≥88%@230VAC, 满载			
	电压	220VAC-240VAC			
	频率	50/60Hz			
	功率因数	>0.95@230VAC, 满载			
	THD	<10%@230VAC			
	电流	0.31Amax@230VAC			
	待机功耗	<0.5W			
	浪涌电流	Cold start, 30A@230VAC			
输出	电流/电压/功率	800mA/9-45V/36W	1000mA/9-45V/45W	1100mA/9-45V/49.5W	1300mA/9-38V/49.4W
		900mA/9-45V/40.5W	1050mA/9-45V/47.25W	1200mA/9-41V/49.2W	1400mA/9-36V/50.4W
	低频纹波电流(<120Hz)	<3%			
	通道	1			
	电流精度	±5%			
功能	启动延时	<1s, at 230Vac			
	调光方式	0/1-10V DIM/Touch DIM (Push DIM)/RX/PWM			
保护	调光范围	0.1%-100% 可调灭			
	短路	关闭输出，故障排除后自动恢复			
安全与电磁兼容	过载	当超过输出电压时，输出电流减小，负载减小时自动恢复。			
	浪涌	L-N:1KV			
	耐受电压	I/P-O/P: 3750VAC/1min/10mA;			
	DALI标准	IEC 62386-101: 2014, IEC 62386-102: 2014; IEC 62386-207: 2009, DALI 2.0			
	安全标准	EN61347-1, EN61347-2-13			
	电磁兼容	EN55015, EN61000-3-2, EN61000-3-3			
其它	EMC电磁抗扰度	EN61000-4-2,3,4,5,6,8,11; EN61547			
	工作温度	-20°C~50°C, 20-50%RH			
	储存温度	-40°C~85°C, 5-70%RH			
	Tc	90°C			
	材质	PC			
	防水等级	IP20			
	寿命	50,000小时@tc:80°C			
	质保期	5年			
	开关机次数	>25,000次			
	包装信息	净重:--g±5%/个; 50个/箱; --kg±5%/箱; 外箱尺寸: 430*306*168mm(L*W*H)			
	产品尺寸	185*42.5*28.5毫米			



The diagram illustrates the wiring for the EUP50AD-1HMC-M device. On the left, the 'DALI信号输入' (DALI signal input) is shown with a square symbol containing a circle. Below it, the '输入220~240V~' (220~240V AC input) is indicated. The device's terminal block on the left has four pins: 'DALI', 'DALI', 'L', and 'N'. The 'DALI' pins are connected to the DALI signal input, and the 'L' and 'N' pins are connected to the AC input. On the right, the 'LED灯具' (LED fixture) is shown. The device's terminal block on the right has four pins: 'LED+', 'LED-', 'Dim+', and 'Dim-'. The 'LED+' and 'LED-' pins are connected to the LED fixture, and the 'Dim+' and 'Dim-' pins are connected to a '0/1-10V信号' (0/1-10V signal) source, represented by a square symbol with a circle.

EUP50AD-1HMC-M 是一个多电流调光驱动器，输出电流可通过DIP S.W.选择，如下所示：

ON 	OFF 	1	2	3									
Rated	800mA	900mA	1000mA	1050mA	1100mA	1200mA	1300mA	1400mA					
Output	9-45V	9-45V	9-45V	9-45V	9-40V	9-41V	9-38V	9-36V					



环境温度 [°C]	负载 [%]
-20	100
0	100
20	100
40	100
45	100
50	85
60	70

The diagram illustrates the wiring for three DALI dimming drivers connected to a common DALI bus and a power supply. On the left, a box labeled 'DALI 主控' (DALI Master) is connected to a power supply with lines L (blue), N (green), and PE (yellow). The three drivers are stacked vertically, each labeled 'DALI 驱动器1' (DALI Driver 1). Each driver has four input terminals: DA (blue), DA+ (orange), L (blue), and N (green). The DA and DA+ terminals of all three drivers are connected to a common DALI bus (represented by a vertical line with horizontal connections). The L and N terminals of each driver are connected to the power supply lines. Each driver has two output terminals, LED+ and LED-, which are connected to an LED load (represented by a light bulb icon).

Diagram illustrating the wiring for Push DIM (Touch DIM) using DALI drivers. The setup includes a power source (N, L), a Push DIM panel (Touch DIM), and three DALI drivers connected to LED strips.

The wiring connections are as follows:

- Power Source:** N (Neutral) and L (Line).
- Push DIM Panel (Touch DIM):** A square panel with a touch-sensitive button.
- DALI Driver 1:**
 - Input: -DA (connected to L), +DA (connected to L), -L (connected to L), +N (connected to N).
 - Output: LED+ (connected to LED strip), LED- (connected to LED strip).
- DALI Driver 2:**
 - Input: -DA (connected to L), +DA (connected to L), -L (connected to L), +N (connected to N).
 - Output: LED+ (connected to LED strip), LED- (connected to LED strip).
- DALI Driver 3:**
 - Input: -DA (connected to L), +DA (connected to L), -L (connected to L), +N (connected to N).
 - Output: LED+ (connected to LED strip), LED- (connected to LED strip).

PWM 信号[%]	电流[mA]
0	0
10	0
20	100
30	250
40	450
50	650
60	850
70	1050
80	1200
90	1350
100	1400

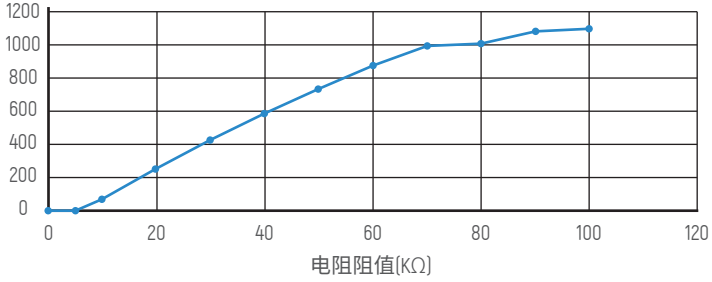
- 1.短按Push DIM (Touch DIM) 开关 (<0.5秒) 进行灯的亮暗控制。
- 2.长按Push DIM (Touch DIM)开关 (>0.5秒) 进行灯具的亮度调节，光是调亮还是调暗，随着每次按压的开关变化而变换。
- 3.双击Push DIM (Touch DIM)开关 (<0.3秒)，连接的所有灯具将达到最亮状态。
- 4.亮度调节范围为1%-100%。
- 5.具有断电记忆功能，重新上电将恢复到上一次断电的状态。

1. 本产品请由具有专业资格的人员进行调试安装。
2. 本产品不能防水，需避免日晒雨淋，如安装在户外，请用防水箱。
3. 良好的散热条件会延长产品的使用寿命,请把产品安装在通风良好的环境。
4. 请检查使用的LED电源输出电压电流，是否符合产品要求。
5. 出于安全考虑，推荐输入和输出(信号端除外)用0.75-1.5mm²PVC或橡胶线缆，并确保接线牢固，以免电线过热或接触不良触发事故。扁平电源线不适用。
6. 通电调试前，应确保所有接线正确，以避免因接线错误而导致灯具损坏。
7. 如果发生故障，请勿私自维修；如有疑问，请联系供应商。

电阻对应输出电流

电阻阻值 (KΩ):	0	5	10	20	30	40	50	60	70	80	90	100
输出电流 (mA):	0	0	83	339	568	791	988	1169	1283	1376	1395	1402

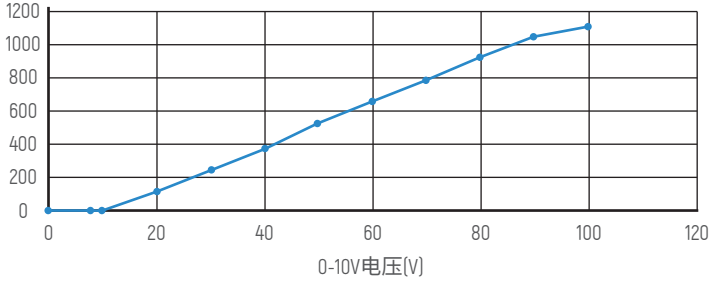
电阻对应输出电流曲线



0-10V对应输出电流

0-10V(V):	0	0.8	1	2	3	4	5	6	7	8	9	10
输出电流 (mA):	0	0	5	143	315	479	656	845	1009	1183	1356	1402

0-10V对应输出电流曲线



本灯具的外部软电缆或软线不可更换；若软线损坏，应将灯具的调光电路(FELV电路)与输入端绝缘，由基本绝缘调光电路(FELV电路)与输出端绝缘，由辅助绝缘调光电路(FELV电路)与输出端绝缘通过功能绝缘与接地导电部件绝缘。



说明书应配有控制装置，控制装置具有FELV控制端子，说明如下：
警告: 标有“触电危险”的FELV端子不可安全触摸。
警告: 连接到任何FELV控制终端的电路应在以下低压供电电压下绝缘控制装置和任何连接到FELV电路的终端应受到保护意外接触。