

EUP40AD-1HMC-M (100100160101)

Summary

EUP40AD-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 output, output current level selectable by DIP S.W.
- 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, Over Voltage
- Suitable for indoor LED lighting application



Application



Downlight



Panel Light



Spotlight



Ceiling Light



Decorative Light



Floor Light



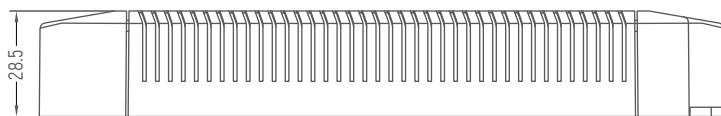
Track Light



Flood Light

Technical Paramaters

Model	EUP40AD-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)	0.26Amax@230VAC			
	Standby power	0.5W			
	Inrush Current(max)	Cold start, 60A@230VAC			
Output	Current/Voltage/Power	750mA/9-45V/33.75W 800mA/9-45V/36W	850mA/9-45V/38.25W 900mA/9-44V/39.6W	950mA/9-42V/39.9W 1000mA/9-40V/40W	1050mA/9-38V/39.9W 1100mA/9-36V/39.6W
	Ripple Current	<3%			
	Channel	1			
	Current Tolerance	±5%			
	No-Load Voltage	56VDC			
	Voltage Range	9-45VDC			
	Turn on delay Time	<1s, at 230Vac			
Function	Dimming Type	0/1-10V/DALI-2/Touch DIM (Push DIM)/PWM/RX			
	Dimming Range	0.1%-100% Dimming to off			
Protection	Short Circuit	Close output, recovers automatically after fault removed			
	Over Load	Hiccup, recovers after fault condition is removed.			
	Over Voltage	Hiccup, recovers after fault condition is removed.			
Safety & EMC	Surge	L-N:1KV;			
	Withstand Voltage	I/P-O/P: 3750VAC/1min/10mA; I/P-E: 1875VAC/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, EN6154			
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547			
Others	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			
	Packing(weight)	Net weight: --g±5%/PCS; 50PCS/Carton; --kg±5%/Carton; Carton Size: 430*306*168mm(L*W*H)			
	Dimension	185*43*29mm(L*W*H)			



The diagram shows the EUP40AD-1HMC-M module connected to a DALI Controller, a 220-240V AC input, a lamp, and a 0/1-10V signal input. The module has terminals for DA1, DA2, L, N, LED+, LED-, Dim+, and Dim-. The DALI Controller is connected to DA1 and DA2. The AC input is connected to L and N. The lamp is connected to LED+ and LED- through a switch. The 0/1-10V signal input is connected to Dim+ and Dim- through a potentiometer.

EUP40AD-1HMC-M is a multi-current dimming driver, output current level selectable by DIP S.W., as the following:

[illegible]

Remark: Function default setting is: 750mA (@switch are all OFF state)

The graph illustrates the relationship between the DALI Dimming Level and the Output Current (%). The main graph shows that the output current remains at 0% for DALI levels 1 through 140, then increases sharply to reach 100% at DALI level 254. The inset graph provides a detailed view of the low-current region, showing that the output current starts at approximately 0.1% at DALI level 1 and increases to 0.4% at DALI level 50.

DALI Dimming Level	Output Current (%)
1	0.1
10	0.15
20	0.2
30	0.25
40	0.3
50	0.4
140	0
200	10
254	100

PWM signal (%)	Current (mA)
0	0
10	0
20	100
30	200
40	350
50	500
60	650
70	800
80	950
90	1100
100	1100

Ambient Temperature (°C)	Load (%)
-20	100
0	100
20	100
40	100
50	100
60	70

Push DIM Panel(Touch DIM)

• DA
• DA
• L
• N

DALI Driver 1

LED+
LED-

• DA
• DA
• L
• N

DALI Driver 1

LED+
LED-

• DA
• DA
• L
• N

DALI Driver 1

LED+
LED-

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

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 0.2%-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.

- 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 0.75-2.5mm² 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.

EUP40AD-1HMC-M (100100160101)

概述

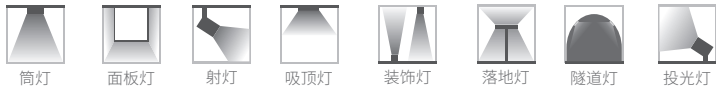
EUP40AD-1HMC-M是一款恒流输出模式LED驱动器。输出和调光电路完全符合新规定，隔离，确保用户和灯具系统在安装过程中使用。

产品特点

- 单通道输出，输出电流电平可通过DIP S.W.选择。
- 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、过压
- 适用于室内LED照明应用，如筒灯、聚光灯、面板灯等

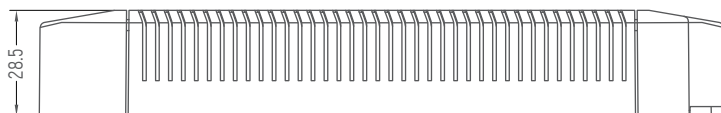


应用



技术参数

产品型号	EUP40AD-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	0.26Amax@230VAC			
	待机功耗	<0.5W			
	浪涌电流	Cold start, 60A@230VAC			
输出	电流/电压/功率	750mA/9-45V/33.75W 800mA/9-45V/36W	850mA/9-45V/38.25W 900mA/9-44V/39.6W	950mA/9-42V/39.9W 1000mA/9-40V/40W	1050mA/9-38V/39.9W 1100mA/9-36V/39.6W
	低频纹波电流[<120Hz]	<3%			
	通道	1			
	电流精度	±5%			
	空载电压	56VDC			
	电压范围	9-45VDC			
	启动延时	<1s, at 230Vac			
功能	调光方式	0/1-10V DIM/PWM/Rx/DALI-2/Touch DIM (Push DIM)			
	调光范围	0.1%-100% 可调灭			
保护	短路	关闭输出，故障排除后自动恢复			
	过载	打嗝，故障排除后自恢复。			
	过压	打嗝，故障排除后自恢复。			
安全与电磁兼容	浪涌	L-N:1KV;			
	耐受电压	I/P-O/P: 3750VAC/1min/10mA; I/P-E: 1875VAC/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, EN6154			
	EMC电磁抗扰度	EN61000-4-2,3,4,5,6,8,11; EN61547			
其它	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			
	装箱尺寸	净重: --g±5%/个; 50个/箱; --kg±5%/箱; 外箱尺寸: 430*306*168毫米(长*宽*高)			
	产品尺寸	185*43*29毫米[长*宽*高]			



EUP40AD-1HMC-M

Wiring diagram showing the connection of the EUP40AD-1HMC-M module. The module has terminals for DALI+ and DALI- (connected to DALI 主控), L and N (connected to 输入 220-240V), LED+ and LED- (connected to 灯具), and Dim+ and Dim- (connected to 0/1-10V 信号输入).

EUP40AD-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：

		1  2  3 	  	  	  	  	  	  	  	
ON	OFF	750mA 9-45V	800mA 9-45V	850mA 9-45V	900mA 9-44V	950mA 9-42V	1000mA 9-40V	1050mA 9-38V	1100mA 9-36V	

Figure 1 is a line graph showing the DALI dimming curve. The x-axis represents the DALI dimming level (DALI调光等级) from 1 to 254. The y-axis represents the output current percentage (输出电流(%)) from 0 to 120. An inset graph provides a detailed view of the curve for DALI dimming levels 1 to 50, showing the output current percentage from 0 to 0.4. The curve shows that the output current increases as the DALI dimming level increases, following a non-linear relationship.

DALI调光等级	输出电流(%)
1	0.00
10	0.01
20	0.02
30	0.04
40	0.07
50	0.10
60	0.14
70	0.18
80	0.22
90	0.26
100	0.30
110	0.34
120	0.38
130	0.42
140	0.46
150	0.50
160	0.54
170	0.58
180	0.62
190	0.66
200	0.70
210	0.74
220	0.78
230	0.82
240	0.86
254	1.00

PWM 信号 (%)	电流 (mA)
0	0
10	0
20	100
30	200
40	300
50	450
60	600
70	750
80	900
90	1050
100	1100

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

Diagram illustrating the DALI dimming system wiring. The DALI master (DALI 主控) is connected to three DALI drivers (DALI 驱动器1). Each driver has two inputs: DA (Data Address) and L (Line). The DA inputs are connected to a common bus. The L inputs are connected to the phase lines (L and N). Each driver has two outputs: LED+ and LED-, which are connected to the LED load.

Diagram illustrating a Push DIM (Touch DIM) lighting control system. A square touch panel is connected to three DALI drivers. Each driver is connected to a common power line (L and N) and a common ground (N). The drivers are labeled "DALI 驱动器" and "LED". The output of each driver is connected to a separate LED light fixture.

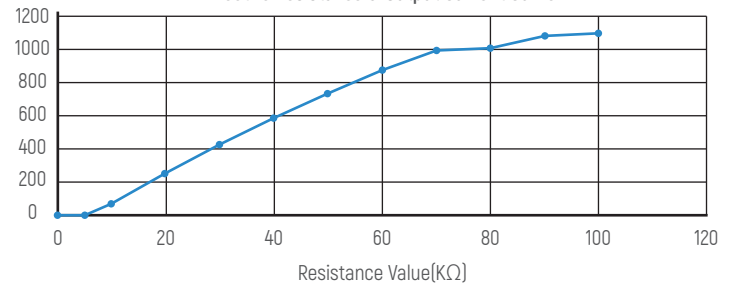
- 1.短按Push DIM (Touch DIM) 开关 [<0.5 秒] 进行灯的亮暗控制。
- 2.长按Push DIM (Touch DIM)开关 [>0.5 秒] 进行灯具的亮度调节，光是调亮还是调暗，随着每次按压的开关变化而变换。
- 3.双击Push DIM (Touch DIM)开关 [<0.3 秒]，连接的所有灯具将达到最亮状态。
- 4.亮度调节范围为0.2%-100%。
- 5.具有断电记忆功能，重新上电将恢复到上一次断电的状态。

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。

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	64	247	425	590	739	882	996	1014	1086	1105

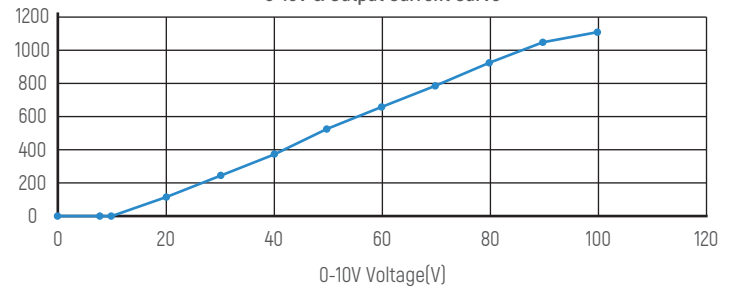
Electric Resistance & Output Current Curve



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	109	237	374	523	651	784	921	1046	1105

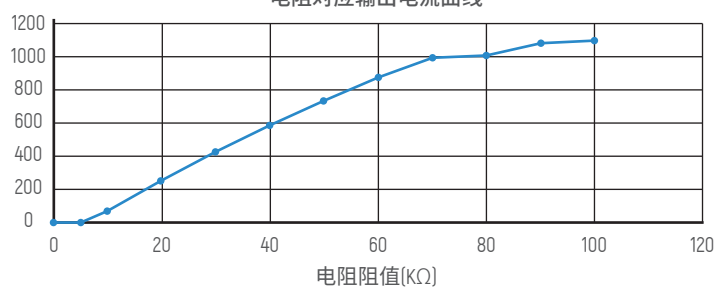
0-10V & Output Current Curve



电阻对应输出电流

电阻阻值 (K Ω):	0	5	10	20	30	40	50	60	70	80	90	100
输出电流 (mA):	0	0	64	247	425	590	739	882	996	1014	1086	1105

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	109	237	374	523	651	784	921	1046	1105

0-10V对应输出电流曲线

