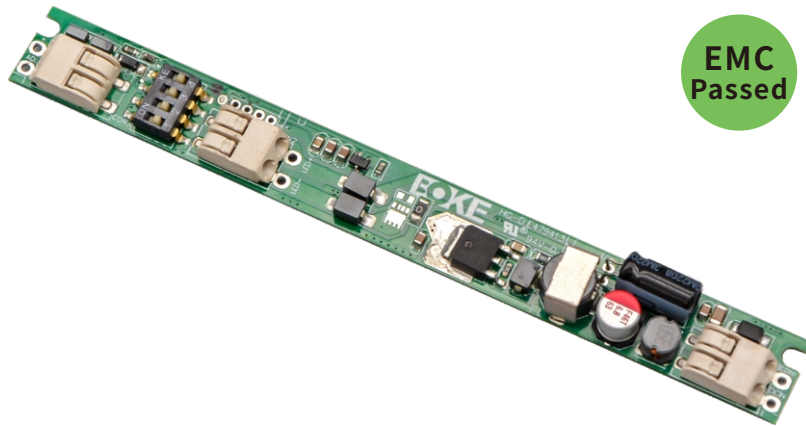


DC track light dimmable driver MET Series suffix M(1-10V/10V PWM/Rx)



**EMC
Passed**

Features

- Support 1-10V/10V PWM/Rx dimming mode
- Not polarity
- 16-level current output can be realized by DIP-switch
- Soft dimming and flicker-free at any brightness, meets the new requirements of ErP certification
- Using HPC patented technology, at any dimming level, the brightness of the luminaries is the same
- Dimming range 0.1~100%, output current accuracy 2%
- Standby power input < 0.5W, meets the requirements of ErP certification
- Intelligent LED hot-plug protection function
- Suitable for STUCCHI standard housing
- SELV and Class III design, suitable for use outside of the luminaire
- Compliance with CE and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5.5-year guarantee

Interfaces

- 1-10V(1-10V/10V PWM/Rx)

Functions

- Protective features
(short-circuit, overload, no-load, hot plug-in protection)

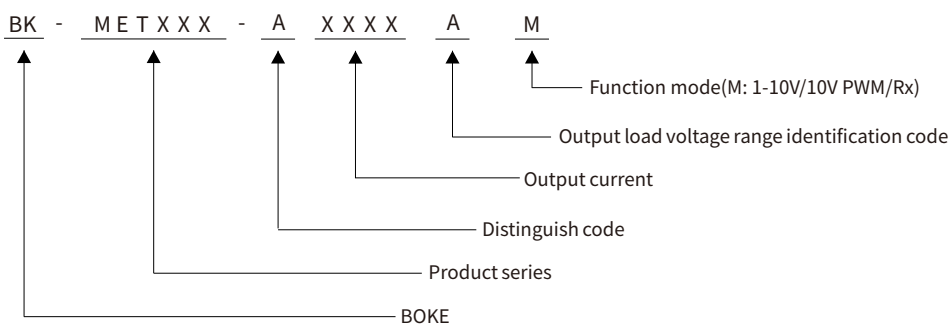
Suitable for lights

- Suitable for DC track light

Typical applications

- LED indoor lighting
- LED office lighting
- LED architectural lighting
- LED commercial lighting

Model coding rules of MET series



Technical data

Product model	BK-MET030-A0800AM
Output parameters	
Regulation method	Constant Current
Rated output current range	0.1-0.8A,see the DIP-switch for details
Rated output voltage range	12-42VDC,see the DIP-switch for details
Rated output power	30.4W Max,see the DIP-switch for details
Output current adjustment	DIP S.W(16 levels)
Output current ripple LF	±2%
Output current accuracy	±2%
Linear regulation	N/A
Load regulation	±3%
No load output voltage	48VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.143%(100Hz),Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.001, SVM = 0.001, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	48VDC±5%
Input voltage range	N/A
Input votage shock	N/A
Input current	<0.69A (Rated input voltage)
Input frequency	N/A
Input power factor	N/A
Input THD	N/A
Efficiency(typ.)	93.5%,see the electrical values below for details
In-rush current	N/A
Start/Switchover/Turn off	<0.7s(DC start),<0.5s(Turn off)
Switching cycles	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):32.5W, No load(Pno): N/A, On stand-by(Psb) : <0.5W, Network stand-by(Pnet) : N/A
Safety	
Withstand voltage	N/A
Mains surge capability	N/A
Isolation resistance	N/A
Control interface	
DALI dimming port	N/A
pushDIM dimming port	N/A
1-10V 3in1 dimming port	Voltage range: 0-15V, interface current consumption: <0.6mA
Auxiliary power supply	N/A
Dimming range	0.1%-100%(minimum current:0.8mA)
Dimming drive mode	PWM(pulse width modulation)
Emergency support	
Central emergency system	N/A
Self-contained emergency	N/A
Environment & Life time	
Operating temperature	Ta=-25-45°C(with package)
Case temperature	N/A
Operating humidity	5-85% RH, not condensed
Storage temp./humidity	-40-80°C, 5-85% RH, not condensed
IP grade	IP20
MTBF	500,000H,MIL-HDBK-217F(25°C)
Life-time	Nominal life-time up to 100,000 h, see the description below for details
Vibration resistant	10~500Hz,5G 12min./1cycle,period for 72min. each along X,Y,Z axes
Acoustic Noise	<25dB(30cm, Normaloperation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE
Safety	EN61347-1, EN61347-2-11
EMC	EN55015, EN61000-4-2
DALI-2	N/A
EL	N/A
RF	N/A

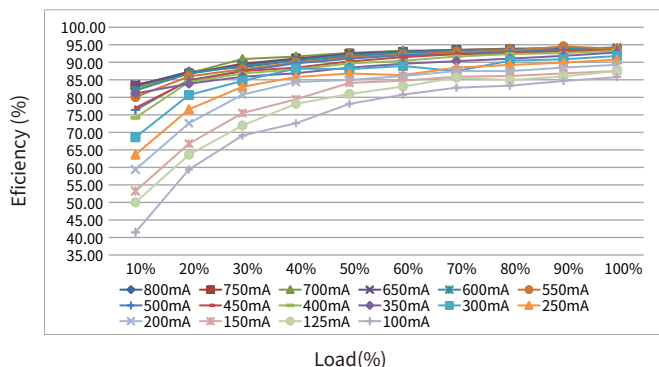
Remarks

- 1.By default, all parameter are measured at 48VDC input, full load and 25°C of ambient temperature.
- 2.when the driver is used with the luminaire, the EMC of the whole luminaire needs to be tested.

Electrical values

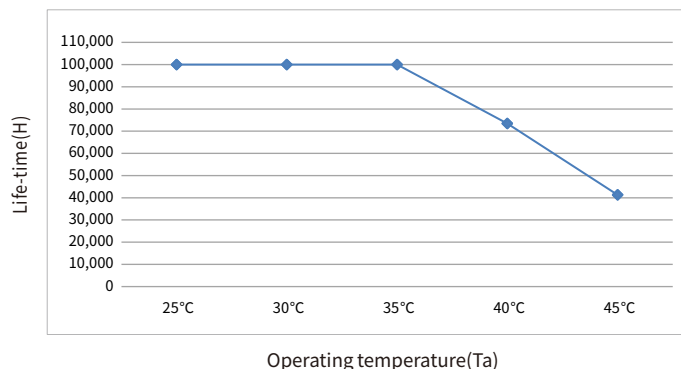
BK-MET030-A0800AM

Efficiency vs load



Expected life-time

Life-time vs. Operating temperature



-The life-time of the LED driver is shown in the figure above
(calculated based on the 90% survival rate).

Functions

Output short-circuit behaviour

- Output short-circuit will not damage the driver.

After removing the short circuit fault, the driver will automatically resume output.

Output no-load operation

- Output no-load will not damage the driver.

Please turn off the driver first if you need to connect the LED load.

Output overload protection

- The LED driver turns off the output if the output voltage range is exceeded.

The output will be activated again after restart the LED driver .

Driver restart method

There are two ways to restart the driver:

- Through the AC input:disconnect the AC of the driver and power it again.
- Through dimming interface.

1-10V:first adjust the output voltage of the dimmer to 0.9V or below,
then adjust it to 1V or above.

Output hot plug-in

- This function is used to prevent LED light that are far below the driver's no-load voltage burnout when hot plugged into a powered driver output.
- This product comes with a default hot plug protection function at the factory and cannot be turned off.

- Note:

Due to the hot plug-in protection function of the driver, the following applications may not achieve the expected effect:

1. When the output of the driver is connected to the color temperature switch:
When the switch is used to change the color temperature, the hot plug-in protection of the driver will be triggered, and the LED will not be lit.
2. When the LED driver is used in conjunction with a self-contained (independent) emergency control device:
Use the self-check test switch of the emergency control device to test the emergency function and when exiting the emergency mode, the driver's hot plug-in protection will be triggered and the LED will not be lit.

The above two applications should use drivers without hot plug-in protection function to achieve the expected working effect. It is recommended to choose our company's drivers without hot plug-in protection function or those that support configurable closing of hot plug-in function.

DIP-switch & output current

BK-MET030-A0800AM

Output			1	2	3	4
Prated(W)	Irated(mA)	Voltage(Vdc)				
4.20	100	12-42	ON	ON	ON	ON
5.25	125	12-42	--	ON	ON	ON
6.30	150	12-42	ON	--	ON	ON
8.40	200	12-42	--	--	ON	ON
10.50	250	12-42	ON	ON	--	ON
12.60	300	12-42	--	ON	--	ON
14.70	350	12-42	ON	--	--	ON
16.80	400	12-42	--	--	--	ON
18.90	450	12-42	ON	ON	ON	--
21.00	500	12-42	--	ON	ON	--
23.10	550	12-42	ON	--	ON	--
25.20	600	12-42	--	--	ON	--
27.30	650	12-42	ON	ON	--	--
29.40	700	12-42	--	ON	--	--
28.00	750	12-40	ON	--	--	--
30.40	800 ★	12-38	--	--	--	--

Remarks:

1. ★ It means that this item is the factory default current.
2. -- It means that this channel is OFF.

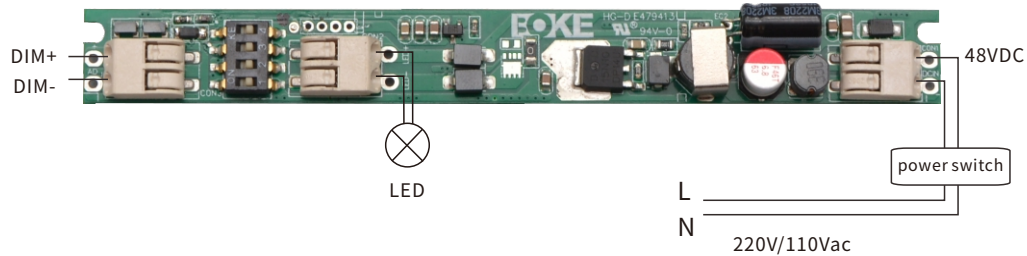
label

BK-MET030-A0800AM

PN:B-MET030-ALC1001AM I/P:48Vdc ~0.69A Max.											
Model:BK-MET030-A0800AM O/P:12-42Vdc(0.1-0.8A 30.4 Max. 48VDC Max.											
Io(mA)	Uo(V)	1	2	3	4	Io(mA)	Uo(V)	1	2	3	4
100	12-42	ON	ON	ON	ON	350	12-42	ON	--	ON	--
125	12-42	--	ON	ON	ON	400	12-42	--	--	ON	--
150	12-42	ON	--	ON	ON	450	12-42	ON	ON	ON	--
200	12-42	--	--	ON	ON	500	12-42	--	ON	ON	--
250	12-42	ON	ON	--	ON	550	12-42	ON	--	ON	--
300	12-42	--	ON	--	ON	600	12-42	--	--	ON	--
Io(mA)	Uo(V)	1	2	3	4	Io(mA)	Uo(V)	1	2	3	4
650	12-42	ON	ON	--	--	700	12-42	--	--	--	--
750	12-40	ON	--	--	--	800	12-38	--	--	--	--

1-10V/10V PWM dimming application

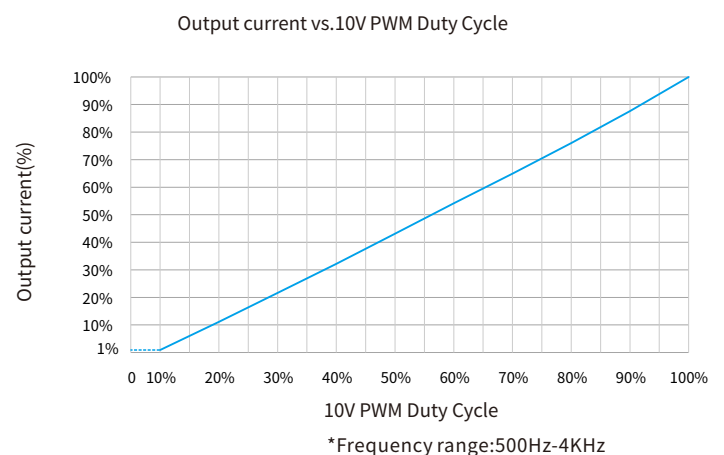
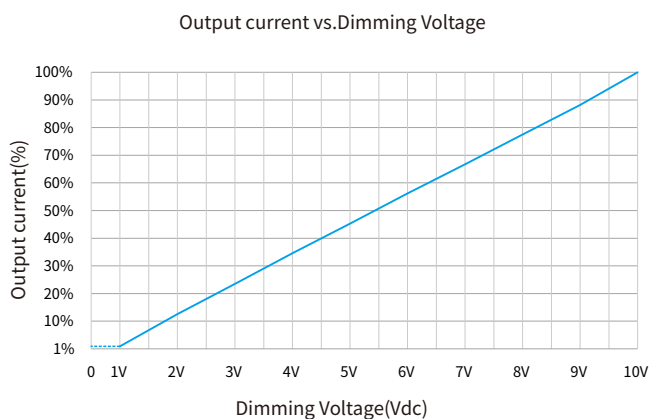
Wiring diagram



Remarks

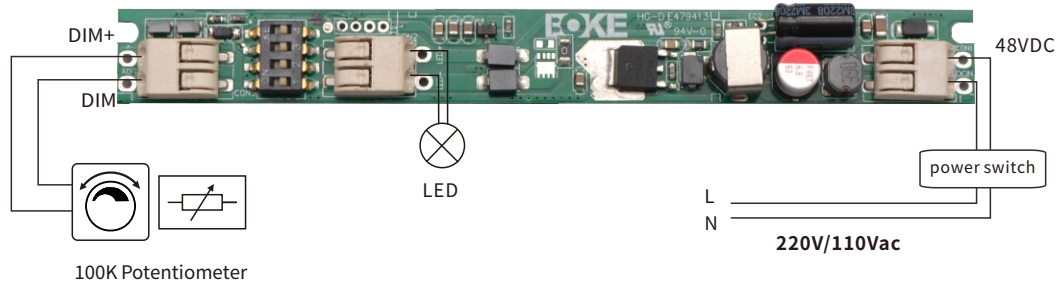
- Dimming interface features: 0-1V darkest, 10V brightest, 1-10V for dimming range, 0V off.
- The dimming interface distinguishes between positive and negative, DIM+ is positive, DIM- is negative, please do not reverse.
- Dimming interface does not support voltage access higher than 15V, otherwise it will cause damage to the internal components.
- When the dimming interface is open, the driver outputs the maximum current. When the interface is short-circuited, the driver outputs the minimum current.
- When multiple synchronous dimming is required, the positive poles of the dimming interface of each driver are connected together, and the negative poles are connected together.
- Support passive dimmer or isolated active dimmer dimming, does not support non-isolated active dimmer dimming.
- In general, it is recommended that the number of mounted drives does not exceed 30pcs, and the wiring length does not exceed 100m.
- It is recommended that the dimming wires should not be lower than the 22AWG wire.
- Do not put the dimming wires with high voltage or interference sources. If it is unavoidable, please use the shielded wires.
- If you need a drive with 0-10V dimming characteristics, please contact BOKE.

Dimming curve



100K potentiometer dimming application

Wiring diagram

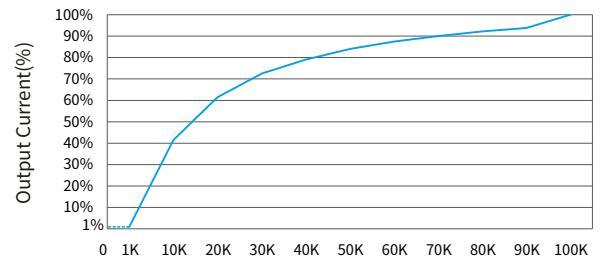


Remarks

- In the 100K potentiometer dimming mode, the potentiometer can only be connected to one driver.

Dimming curve

100K potentiometer dimming curve

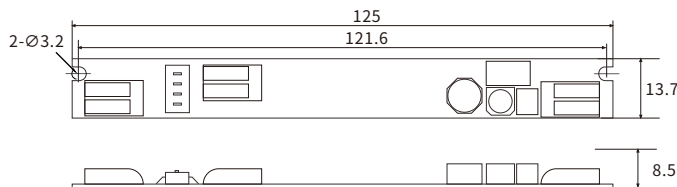


Adjustable resistance

Installation

Unit:mm

MET030-A



DIMMING

numbering	function	colour
CON3	DIM+	white
	DIM-	white

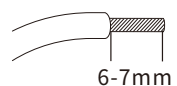
OUTPUT

numbering	function	colour
CON2	LED+	white
	LED-	white

INPUT

numbering	function	colour
CON1	DCIN	white
	DCIN	white

Input,output and dimming wire:

0.2-0.75mm²


Installation note

LED Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.
- If a LED load is connected the device has to be restarted.
- Restart can be achieved by re-powering the driver or executing a on/off command (action) through the control interface.

Installation requirements

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the driver shall not exceed the value of Ta at any time.
- Please be careful not to damage the electronics during assembly.
- All electronic components shall not be squeezed after assembly.

Wiring guidelines

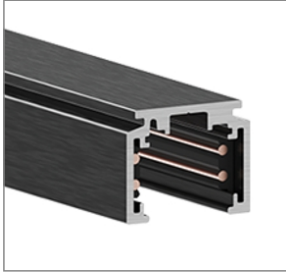
- All connections must be kept as short as possible to ensure good EMI behaviour.
- Max. length of output wires is 0.5 m.
- Incorrect wiring can damage LED modules.

Replace LED module

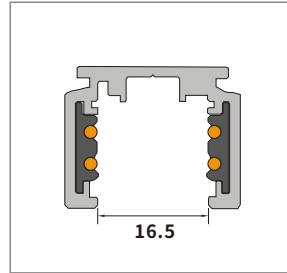
1. Mains off
2. Wait more than 5 seconds
3. Remove LED module
4. Connect LED module again

Compatible with the following guide rails

Number	Manufacturer	Housing model	Guide model
1	STUCCHI	9519-166,9519-166-M 9519-166-K,9519-166-M-K	9500-x/B-ST1-E(x=1,2,3) 9500-x/W2-ST1-E(x=1,2,3)
2	JBD	JB-01,JB-06	JB-M-x(x=X1,W1,W2,D2,2,4,5,C-2)

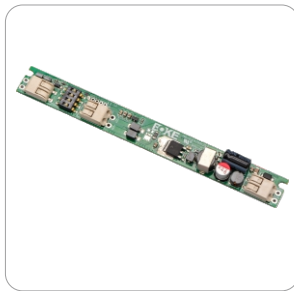


Track



dimensions and layout(Unit:mm)

Packaging



Product



EPE+Packaging



100pcs×4boxes=400pcs/CTN

Model	Product size	Weight	Packaging size	EPE size	Carton size	Qty/carton	N.W	G.W
MET030-A	L125*W13.7*H8.5mm	12g	L390*W280*H50mm	L370*W270*H20mm	L410*W300*H230mm	400pcs	4.8KG	6.25KG

Additional information

1. The life and MTBF of the product are for reference only, and do not represent a warranty statement.
2. For more information, please send an email to info@bokedriver.com.