

Constant current linear dimmable driver
MAN Series suffix MR(1-10V/10V PWM/Rx dimming+External DIP-switch)



Optional accessories(Model:BK-SW008A)

Features

- Input and output non-isolated
- Support 1-10V/10V PWM/Rx dimming
- Suitable for emergency lighting acc. to EN 50172
- Soft dimming and flicker-free at any brightness
- 10-level current output can be realized by external DIP-switch
- Using HPC patented technology at any dimming level, the brightness of the lights is the same
- Dimming range 1~100%, output current accuracy 5%
- High PF, high efficiency, low THD
- Suitable for built-in use of Class I lamps
- Passed CE, ENEC, UKCA, RCM, EL and other certifications
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h
- 5.5-year guarantee

Interfaces

- 1-10V 3in1 (1-10V / 10V PWM / Rx)

Functions

- Support central emergency application (dimming normal in DC input)
- Support self-contained emergency application
- Protective features (short-circuit, no-load protection)

Suitable for lights

- Suitable for linear lights, tri-proof lights, floor lights, bracket lights and other linear or ultra-thin lights etc.

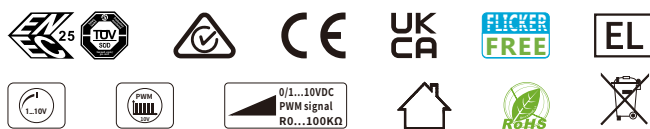
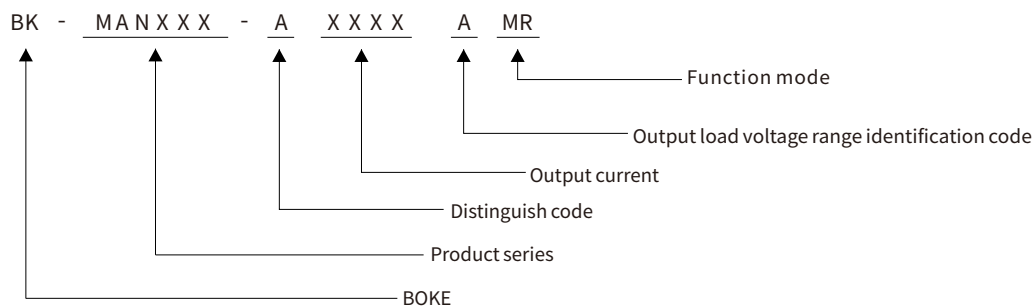
Typical applications

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

Notice

- When using PWM to turn off the LED, the LED may be **slightly light**, It can be solved in the following two ways:
 1. Some resistors are connected in parallel to the LED string .
 2. Disconnect the input live wire (L wire) of the driver through the switch.

Model coding rules of MAN series



Function list

Model	Suffix	Wired dimming	Function
		1-10V 3in1	
BK-MAN040-A BK-MAN075-A BK-MAN100-A BK-MAN150-A	MR	√	External dialing

Model list

Model	Input voltage	Output power	Output voltage	Output current	Dimension
BK-MAN040-A0400AMR	200-240VAC/DC	40W MAX.	50-240VDC	0.1-0.4A	L280*W30*H21mm
BK-MAN075-A0550AMR	200-240VAC/DC	75.35W MAX.	50-240VDC	0.1-0.55A	L280*W30*H21mm
BK-MAN100-A0800AMR	200-240VAC/DC	100W MAX.	50-240VDC	0.35-0.8A	L280*W30*H21mm
BK-MAN150-A1000AMR	200-240VAC/DC	150W MAX.	50-240VDC	0.35-1A	L360*W30*H21mm

Technical data

Product model	BK-MAN040-A0400AMR
Output parameters	
Regulation method	Constant Current
Rated output current range	0.1-0.4A, see the DIP-switch for details
Rated output voltage range	50-240VDC, see the DIP-switch for details
Rated output power	40W Max, see the DIP-switch for details
Output current adjustment	External DIP S.W(10 levels)
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	300VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=1.15%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.021, SVM = 0.004, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.22A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF:0.97 ,DF: 0.98, see the electrical values below for details
Input THD(typ.)	9% , see the electrical values below for details
Efficiency(typ.)	92% , see the electrical values below for details
In-rush current(typ.)	11.68A peak ,304us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):43.5W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
Safety	
Withstand voltage	I/P-FG:1750VAC,DIM-/DIM+-O/P:1500VAC,DIM-/DIM+-FG:1750VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.6mA
Isolation resistance	I/P-FG:100MΩ/500Vdc/25°C/70% RH
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	1%-100% (minimum current:5mA)
Dimming drive mode	AM(amplitude modulation)
Emergency support	
Central emergency system	Supported(dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=85°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-MAN075-A0550AMR
Output parameters	
Regulation method	Constant Current
Rated output current range	0.1-0.55A, see the DIP-switch for details
Rated output voltage range	50-240VDC, see the DIP-switch for details
Rated output power	75.35W Max, see the DIP-switch for details
Output current adjustment	External DIP S.W(10 levels)
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	300VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.076%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.008, SVM = 0.002, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.41A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF:0.99 ,DF: 0.99, see the electrical values below for details
Input THD(typ.)	5% , see the electrical values below for details
Efficiency(typ.)	94.5% , see the electrical values below for details
In-rush current(typ.)	24A peak ,310us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):79.7W, No load(Pno): N/A, On stand-by(Psb) : N/A, Network stand-by(Pnet) : N/A
Safety	
Withstand voltage	I/P-FG:1750VAC,DIM-/DIM+-O/P:1500VAC,DIM-/DIM+-FG:1750VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.6mA
Isolation resistance	I/P-FG:100MΩ/500Vdc/25°C/70% RH
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	1%-100% (minimum current:5mA)
Dimming drive mode	AM(amplitude modulation)
Emergency support	
Central emergency system	Supported(dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-MAN100-A0800AMR
Output parameters	
Regulation method	Constant Current
Rated output current range	0.35-0.8A, see the DIP-switch for details
Rated output voltage range	50-240VDC, see the DIP-switch for details
Rated output power	100W Max, see the DIP-switch for details
Output current adjustment	External DIP S.W(10 levels)
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	300VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.112%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.001, SVM = 0.002, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.53A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF:0.99 ,DF:0.99, see the electrical values below for details
Input THD(typ.)	5% , see the electrical values below for details
Efficiency(typ.)	95.5% , see the electrical values below for details
In-rush current(typ.)	25A peak ,360us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):104.7W, No load(Pno): N/A, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A
Safety	
Withstand voltage	I/P-FG:1750VAC,DIM-/DIM+-O/P:1500VAC,DIM-/DIM+-FG:1750VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.56mA
Isolation resistance	I/P-FG:100MΩ/500Vdc/25°C/70% RH
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	1%-100% (minimum current:5mA)
Dimming drive mode	AM(amplitude modulation)
Emergency support	
Central emergency system	Supported(dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

Technical data

Product model	BK-MAN150-A1000AMR
Output parameters	
Regulation method	Constant Current
Rated output current range	0.35-1A, see the DIP-switch for details
Rated output voltage range	50-240VDC, see the DIP-switch for details
Rated output power	150W Max, see the DIP-switch for details
Output current adjustment	External DIP S.W(10 levels)
Output current ripple LF	±3%
Output current accuracy	±5%
Linear regulation	±5%
Load regulation	±5%
No load output voltage	300VDC
Flicker-free(typ.)	Flickering percent(IEEE 1789)=0.360%(100Hz), Flicker index(IEEE 1789)=0.000(100Hz), Pst LM = 0.000, SVM = 0.001, (The above parameters are obtained from testing the panel lights)
Input parameters	
Rated input voltage range	200-240VAC 200-240VDC
Input voltage range	180-264VAC 180-264VDC
Input voltage shock	<380 V AC
Input current	<0.79A (Rated input voltage)
Input frequency	0/50/60Hz
Input PF/Input DF(typ.)	PF:0.99 ,DF: 0.99, see the electrical values below for details
Input THD(typ.)	5% , see the electrical values below for details
Efficiency(typ.)	95.5% , see the electrical values below for details
In-rush current(typ.)	30A peak ,430us duration(50 % Ipeak), see the description below for details
Start/Switchover/Turn off	<0.5s(AC start), <0.5s(DC start), <0.3s(AC/DC switchover), <0.5s(Turn off)
Switching cycles	> 100,000 switching cycles
Power consumption(typ.)	Full load(Pin):157W, No load(Pno): N/A, On stand-by(Psb): N/A, Network stand-by(Pnet): N/A
Safety	
Withstand voltage	I/P-FG:1750VAC,DIM-/DIM+-O/P:1500VAC,DIM-/DIM+-FG:1750VAC
Mains surge capability	L-N:2KV,L-FG/N-FG:2KV(90°/270° , 5 times each with an interval of 60s)(Performance criterion:B)
Leakage current(typ.)	0.65mA
Isolation resistance	I/P-FG:100MΩ/500Vdc/25°C/70% RH
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	1%-100% (minimum current:5mA)
Dimming drive mode	AM(amplitude modulation)
Emergency support	
Central emergency system	Supported(dimming normal in DC input)
Self-contained emergency	Supported
Environment & Life time	
Operating temperature	Ta=-20-60°C
Case temperature	Tc=90°C
Operating humidity	5-85% RH, non-condensing
Storage temp./humidity	-40-80°C, 5-85% RH, non-condensing
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, Normal operation)
Environmental protection	RoHS
Certifications and standards	
Certification	CE, ENEC, UKCA, RCM, EL
Safety	EN61347-1, EN61347-2-13, EN62384
EMC	EN55015, EN61000-3-2 , EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547
DALI-2	N/A
EL	Compatible IEC 61347-2- 13 Annex J, compatible with EN 60598-2-22 and EN 50172
RF	N/A

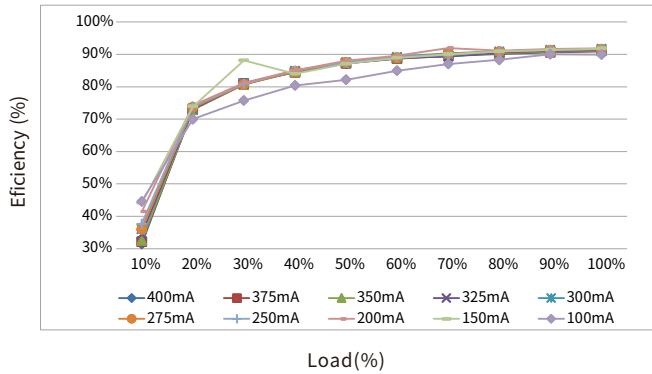
Remarks

1.By default, all parameter are measured at 230VAC input, 50Hz, full load and 25°C of ambient temperature.

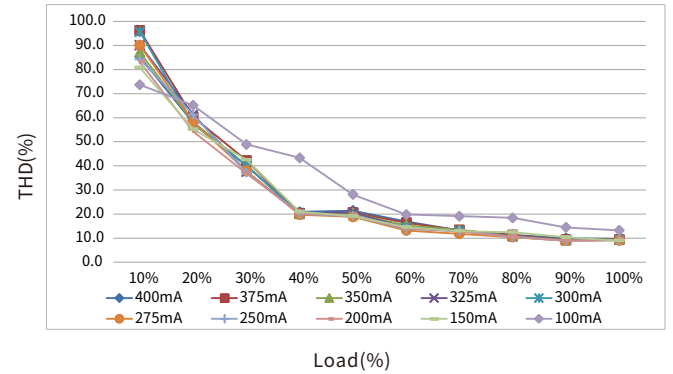
Electrical values

BK-MAN040-A0400AMR

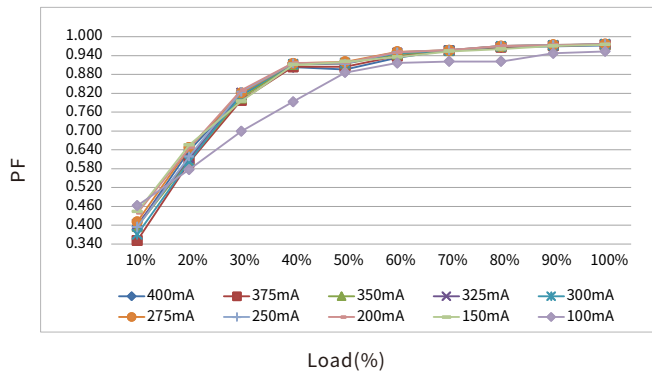
Efficiency vs Load



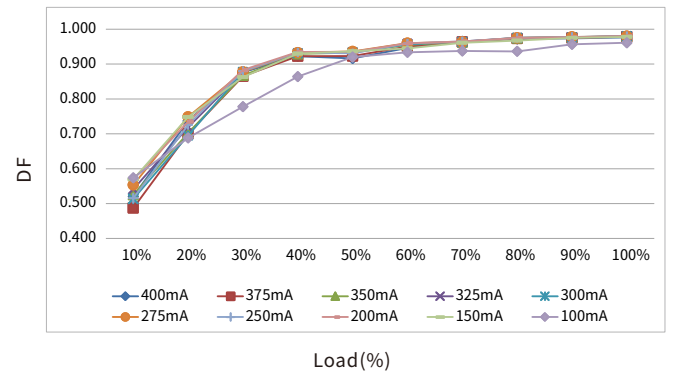
THD vs. Load



Power factor vs. Load

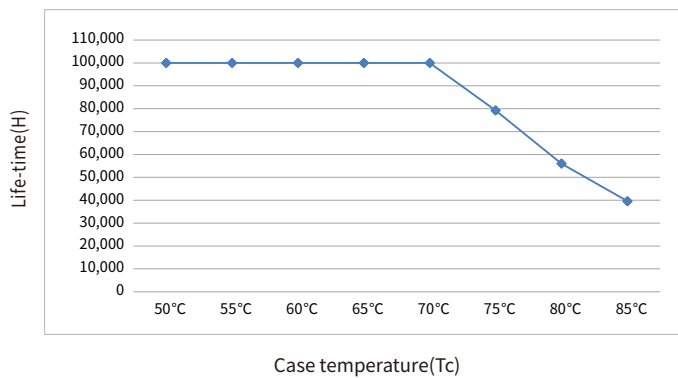


Displacement factor vs. Load



Expected life-time

Life-time vs. case temperature



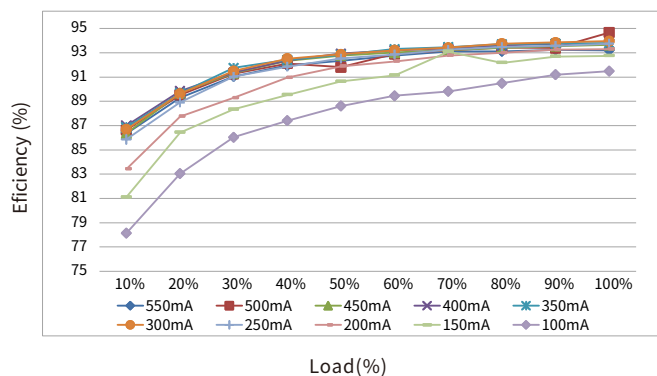
- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of t_c to t_a temperature depends also on the luminaire design.

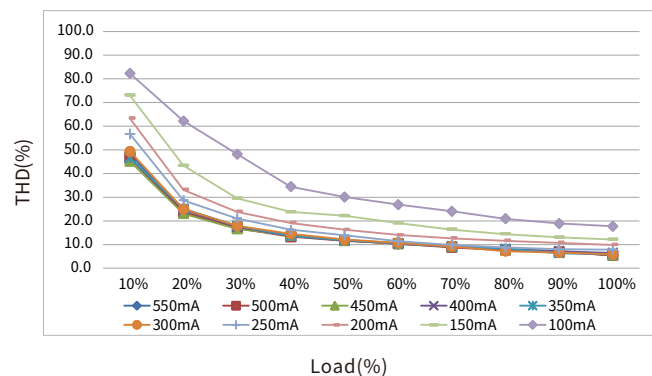
Electrical values

BK-MAN075-A0550AMR

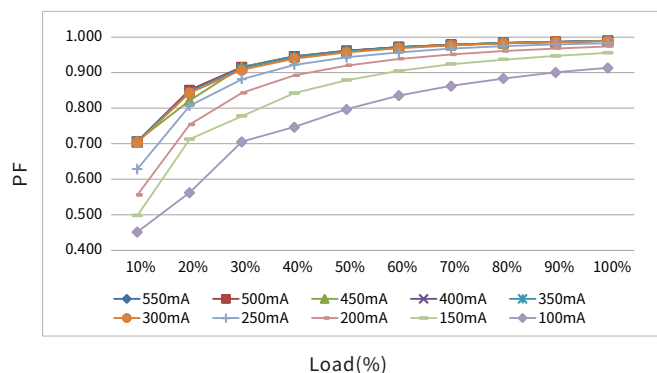
Efficiency vs Load



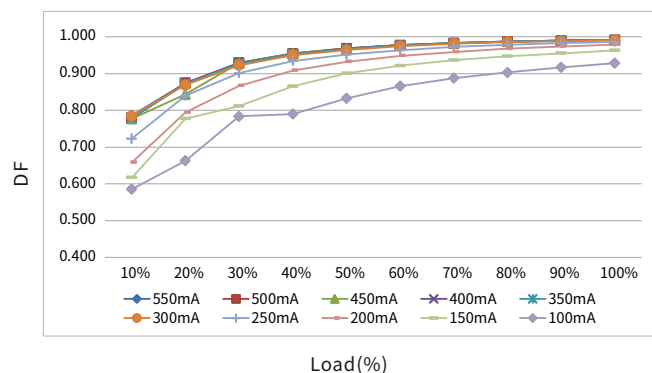
THD vs. Load



Power factor vs. Load

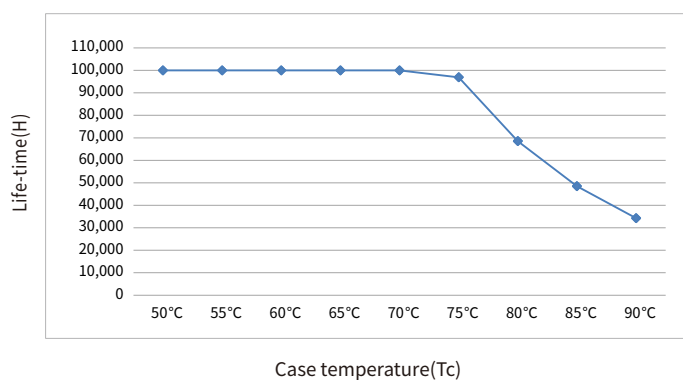


Displacement factor vs. Load



Expected life-time

Life-time vs. case temperature

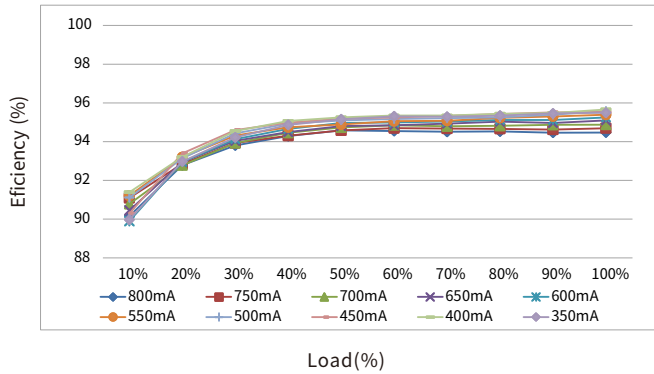


- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of t_c to t_a temperature depends also on the luminaire design.

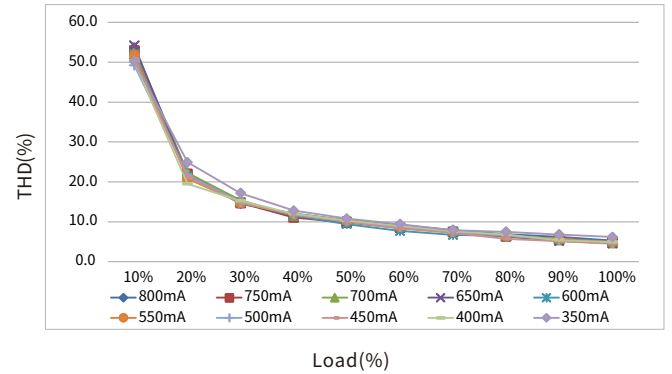
Electrical values

BK-MAN100-A0800AMR

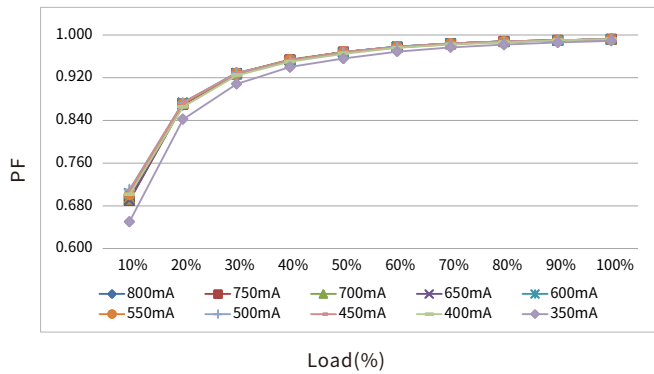
Efficiency vs Load



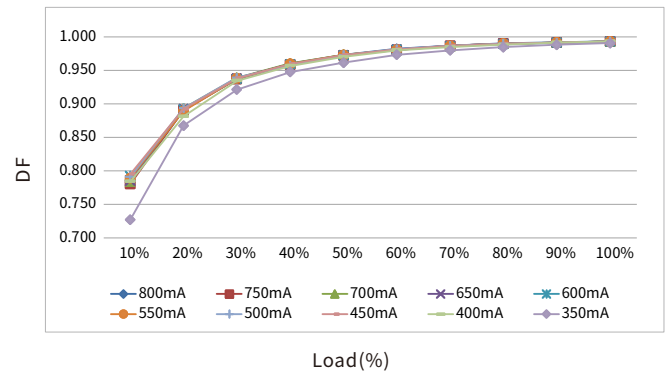
THD vs. Load



Power factor vs. Load

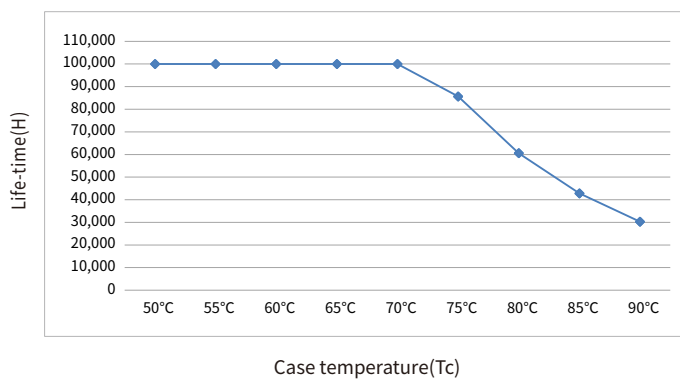


Displacement factor vs. Load



Expected life-time

Life-time vs. case temperature



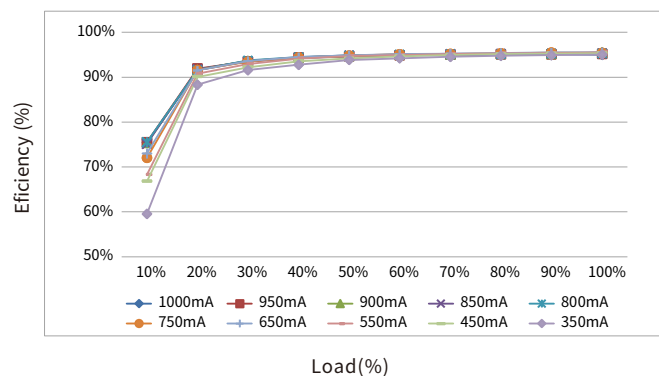
- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).

- The relation of t_c to t_a temperature depends also on the luminaire design.

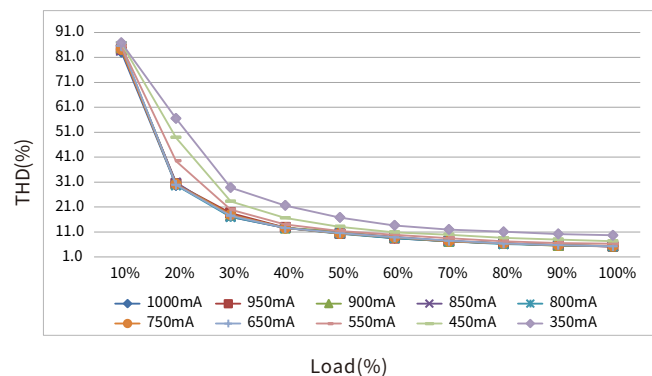
Electrical values

BK-MAN150-A1000AMR

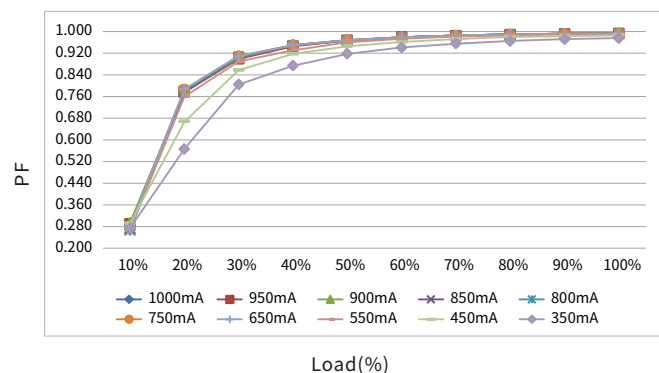
Efficiency vs Load



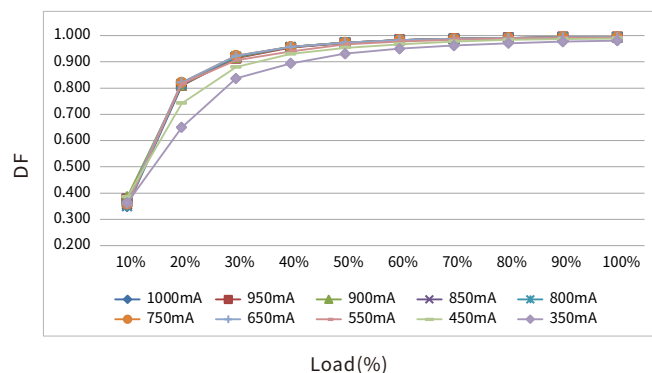
THD vs. Load



Power factor vs. Load

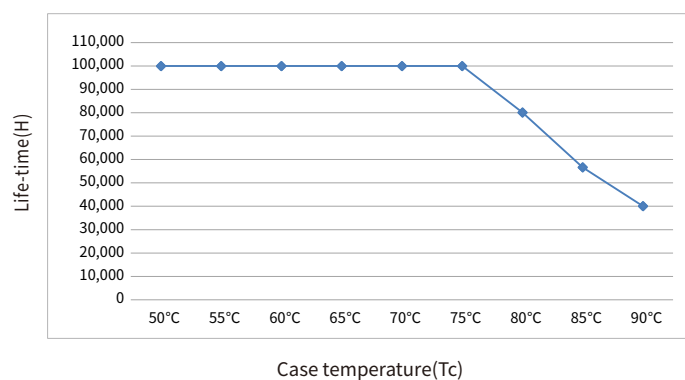


Displacement factor vs. Load



Expected life-time

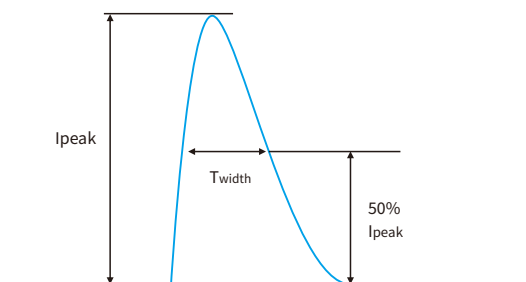
Life-time vs. case temperature



- The life-time of the LED driver is shown in the figure above (calculated based on the 90% survival rate).
- The relation of t_c to t_a temperature depends also on the luminaire design.

Surge

Model	Ipeak	Twidth	Condition	Relative number of MCB														
				B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
BK-MAN040-A0400AMR	11.68A	304us	AC 230V, Full load, Cold start, $T_a \leq 30^\circ\text{C}$, MCB is not installed side by side	18	24	30	37	46	31	40	49	62	77	41	53	66	82	103
BK-MAN075-A0550AMR	24A	310us		9	11	14	17	22	15	19	23	29	36	22	29	36	45	56
BK-MAN100-A0800AMR	25A	360us		7	9	12	14	18	12	16	19	24	30	17	22	27	34	43
BK-MAN150-A1000AMR	27A	490us		5	6	8	10	12	8	11	13	17	21	11	15	18	23	28



Remarks

- The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- Calculation uses typical values from ABB series S200 as a reference.
- Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.
- If the ambient temperature of the MCB installation exceeds 30°C or multiple MCBs are installed side by side, the number of drives mounted will be reduced and the calculation needs to be recalculated.
- Electrician's usually consider Type B for household lighting and Type C for commercial lighting application.

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.

Driver restart method

There are one ways to restart the driver:

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

Insulation between circuits

Isolation	Input	Output	Case	DIM	PWM
Input	-	-	Basic	Basic	Basic
Output	-	-	Basic	Basic	Basic
Case	Basic	Basic	-	Basic	Basic

Label

BK-MAN040-A0400AMR

INPUT
● ACL/DC+
● ACN/DC-
● NC
● PE

Non-isolated
Dimmable Constant Current LED Driver
MODEL: BK-MAN040-A0400AMR
INPUT: 200-240V $\pm 5\%$ 50/60Hz 0.22A Max. λ : 0.5C-0.95
OUTPUT: 50-100V $\pm 5\%$ 400mA 40W Max.
Other ratings see selection sheet
For LED modules use only
BOKE Drivers Co., Ltd.
www.bokedriver.com
MADE IN CHINA

Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA

OUTPUT
300VDC Max.
LED+
LED-
DIM+
DIM-
SM-A
SM-B

Output Voltage (V)	Output Current (mA)	Output Power (W)
50	400	20
60	333	20
70	286	20
80	250	20
90	222	20
100	200	20

BK-MAN075-A0550AMR

INPUT
● ACL/DC+
● ACN/DC-
● NC
● PE

Non-isolated
Dimmable Constant Current LED Driver
MODEL: BK-MAN075-A0550AMR
INPUT: 200-240V $\pm 5\%$ 50/60Hz 0.41A Max. λ : 0.5C-0.95
OUTPUT: 50-137V $\pm 5\%$ 550mA 75.35W Max.
Other ratings see selection sheet
For LED modules use only
BOKE Drivers Co., Ltd.
www.bokedriver.com
MADE IN CHINA

Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA

OUTPUT
300VDC Max.
LED+
LED-
DIM+
DIM-
SM-A
SM-B

Output Voltage (V)	Output Current (mA)	Output Power (W)
50	550	27.5
60	458	27.5
70	396	27.5
80	341	27.5
90	296	27.5
100	259	27.5

BK-MAN100-A0800AMR

INPUT
● ACL/DC+
● ACN/DC-
● NC
● PE

Non-isolated
Dimmable Constant Current LED Driver
MODEL: BK-MAN100-A0800AMR
INPUT: 200-240V $\pm 5\%$ 50/60Hz 0.53A Max. λ : 0.5C-0.95
OUTPUT: 50-150V $\pm 5\%$ 800mA 100W Max.
Other ratings see selection sheet
For LED modules use only
BOKE Drivers Co., Ltd.
www.bokedriver.com
MADE IN CHINA

Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA

OUTPUT
300VDC Max.
LED+
LED-
DIM+
DIM-
SM-A
SM-B

Output Voltage (V)	Output Current (mA)	Output Power (W)
50	800	40
60	667	40
70	571	40
80	500	40
90	444	40
100	400	40

BK-MAN150-A1000AMR

INPUT
● ACL/DC+
● ACN/DC-
● NC
● PE

Non-isolated
Dimmable Constant Current LED Driver
MODEL: BK-MAN150-A1000AMR
INPUT: 200-240V $\pm 5\%$ 50/60Hz 0.79A Max. λ : 0.7C-0.95
OUTPUT: 50-150V $\pm 5\%$ 1000mA 150W Max.
Other ratings see selection sheet
For LED modules use only
www.bokedriver.com
MADE IN CHINA

BOKE Drivers Co., Ltd.
Address: 2nd and 3rd Floor, No.51, Xihuan 5th Road, South District, 528455 Zhongshan City, Guangdong, CHINA

OUTPUT
300VDC Max.
LED+
LED-
DIM+
DIM-
SM-A
SM-B

Output Voltage (V)	Output Current (mA)	Output Power (W)
50	1000	50
60	833	50
70	714	50
80	625	50
90	556	50
100	500	50

DIP-switch & output current

BK-MAN040-A0400AMR

Output			1	2	3	4
Prated(W)	Irated(mA)	Voltage(Vdc)				
24.00	100	54-240	--	ON	ON	ON
36.00	150	54-240	ON	--	ON	ON
40.00	200	54-200	--	--	ON	ON
40.00	250	54-160	--	ON	--	ON
39.88	275	54-145	--	--	--	ON
39.90	300	54-133	ON	ON	ON	--
39.98	325	54-123	--	--	ON	--
39.90	350	54-114	--	ON	--	--
39.75	375	54-106	ON	--	--	--
40.00	400	54-100	--	--	--	--

BK-MAN075-A0550AMR

Output			1	2	3	4
Prated(W)	Irated(mA)	Voltage(Vdc)				
24.00	100	50-240	--	ON	ON	ON
36.00	150	50-240	ON	--	ON	ON
48.00	200	50-240	--	--	ON	ON
60.00	250	50-240	--	ON	--	ON
72.00	300	50-240	--	--	--	ON
74.90	350	50-214	ON	ON	ON	--
74.80	400	50-187	--	--	ON	--
74.70	450	50-166	--	ON	--	--
75.00	500	50-150	ON	--	--	--
75.35	550	50-137	--	--	--	--

BK-MAN100-A0800AMR

Output			1	2	3	4
Prated(W)	Irated(mA)	Voltage(Vdc)				
84.00	350	50-240	--	ON	ON	ON
96.00	400	50-240	ON	--	ON	ON
99.90	450	50-222	--	--	ON	ON
100.0	500	50-200	--	ON	--	ON
99.55	550	50-181	--	--	--	ON
99.60	600	50-166	ON	ON	ON	--
99.45	650	50-153	--	--	ON	--
99.40	700	50-142	--	ON	--	--
99.75	750	50-133	ON	--	--	--
100.0	800	50-125	--	--	--	--

BK-MAN150-A1000AMR

Output			1	2	3	4
Prated(W)	Irated(mA)	Voltage(Vdc)				
84.00	350	50-240	--	ON	ON	ON
108.00	450	50-240	ON	--	ON	ON
132.00	550	50-240	--	--	ON	ON
149.50	650	50-230	--	ON	--	ON
150.00	750	50-200	--	--	--	ON
149.60	800	50-187	ON	ON	ON	--
149.60	850	50-176	--	--	ON	--
149.40	900	50-166	--	ON	--	--
149.15	950	50-157	ON	--	--	--
150.00	1000	50-150	--	--	--	--

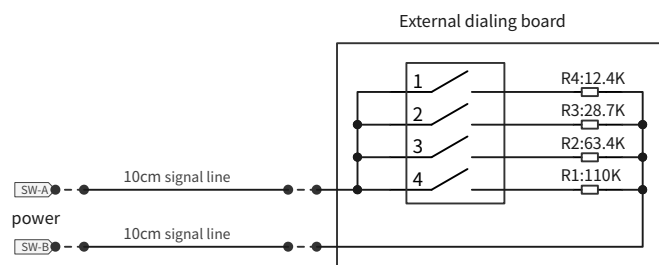
Remarks:

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

External DIP-switch parameters

Note:

- The wiring length of the external drawing code shall not exceed 10cm and The EMC of the power supply must be confirmed with the whole luminaire.
- Custom currents must be re-matched with resistance values and confirmed with the manufacturer
- It is recommended that the current between each gear should be $\geq 50\text{mA}$.



Output current(mA)				Switch			
MAN040	MAN075	MAN100	MAN150	1	2	3	4
100	100	350	350	--	ON	ON	ON
150	150	400	450	ON	--	ON	ON
200	200	450	550	--	--	ON	ON
250	250	500	650	--	ON	--	ON
275	300	550	750	--	--	--	ON
300	350	600	800	ON	ON	ON	--
325	400	650	850	--	--	ON	--
350	450	700	900	--	ON	--	--
375	500	750	950	ON	--	--	--
400	550	800	1000	--	--	--	--

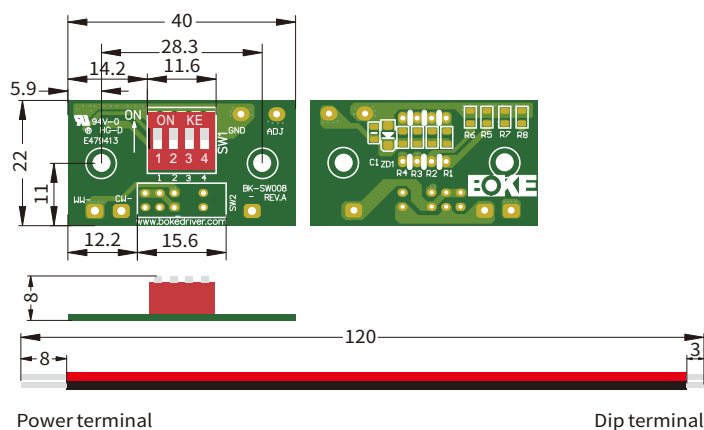
Note:10 current can be customized configuration, need software support, customize the current please contact BOKE.

Optional accessories

DIP switch

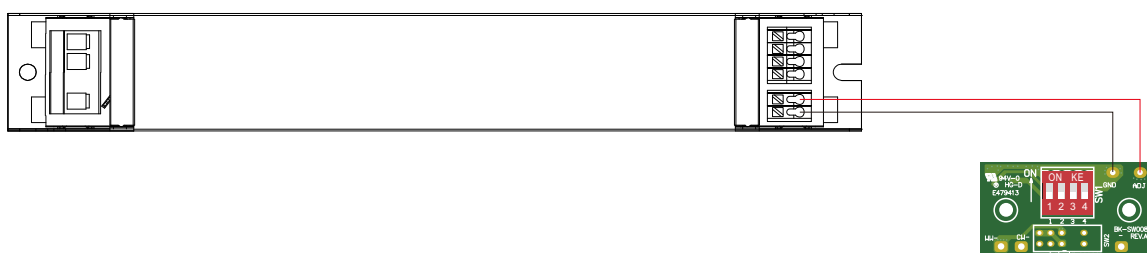


(Model: BK-SW010A)



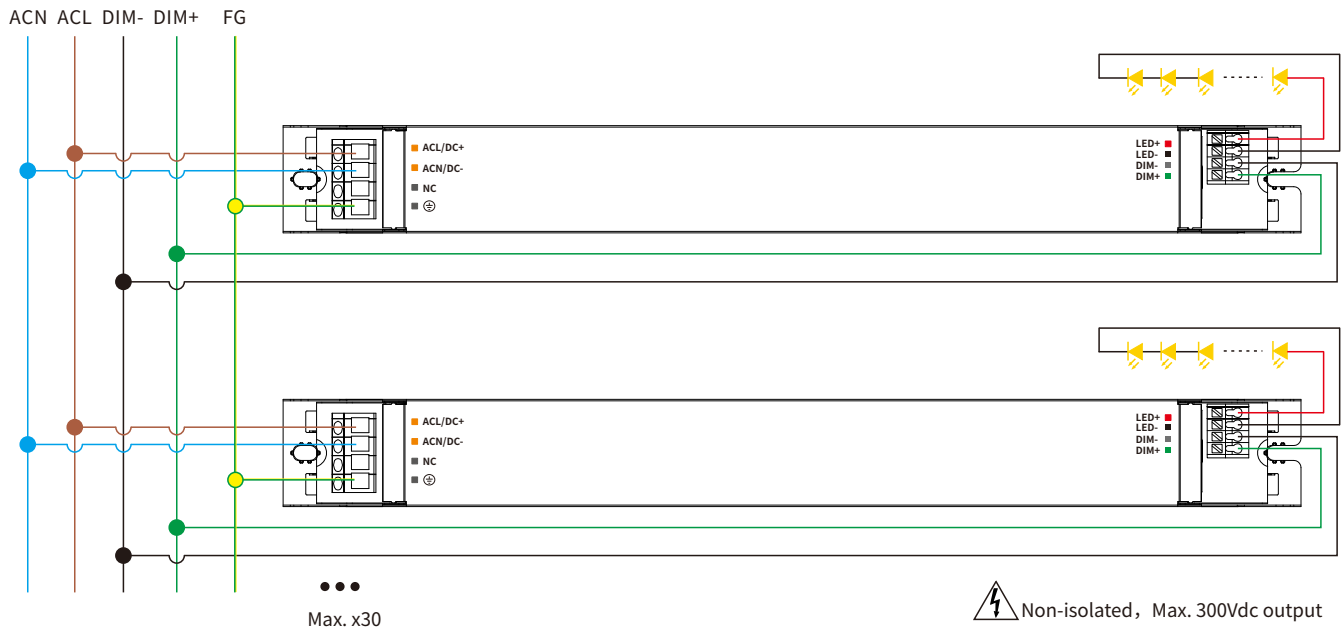
Installation diagram of accessories

(Model: BK-SW010A)



1-10V/10V PWM dimming application

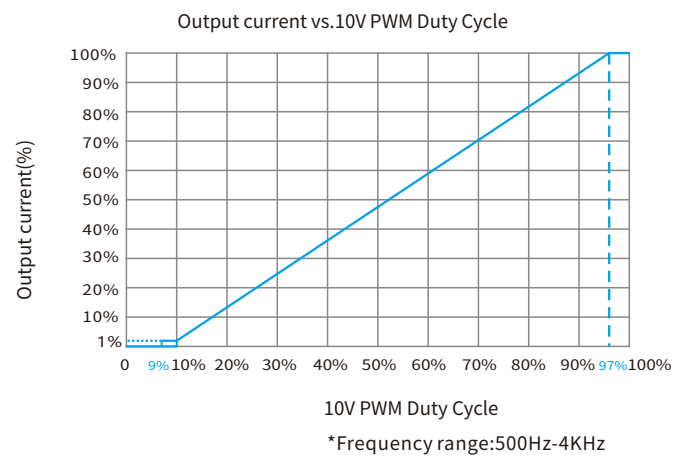
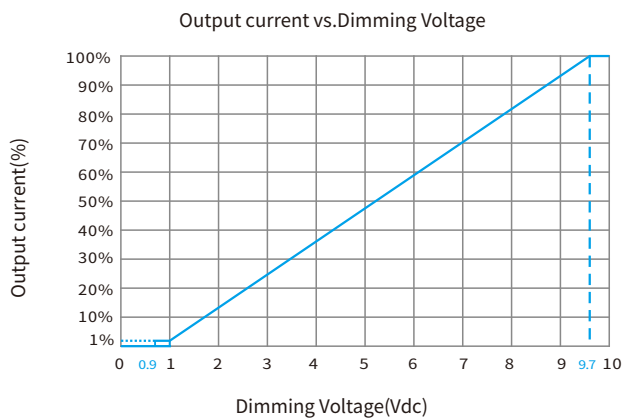
Wiring diagram



Remarks

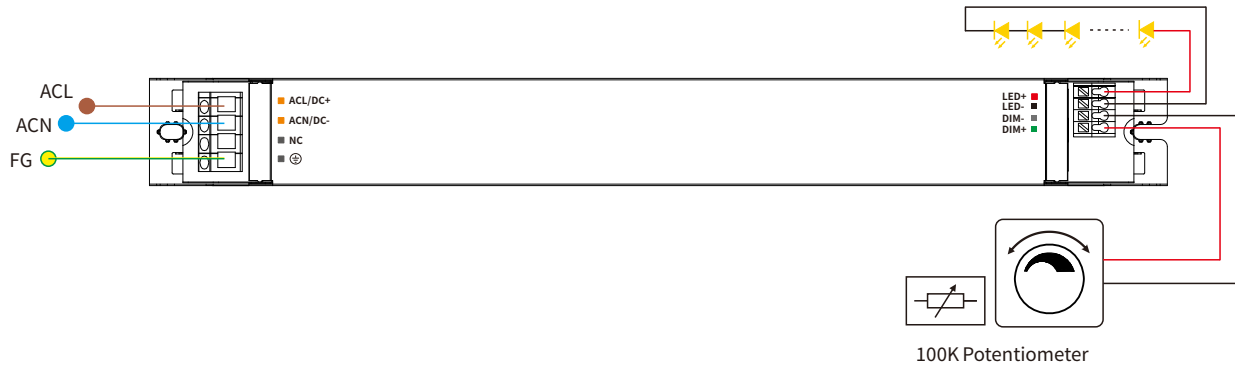
- Dimming interface characteristics: 0.9V and below are closed, 1V is the darkest, 10V is the brightest, 1-10V is the dimming range.
- The dimming interface distinguishes between positive and negative, DIM+ is positive, DIM- is negative, please do not reverse.
- Dimming interface does not support voltage 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

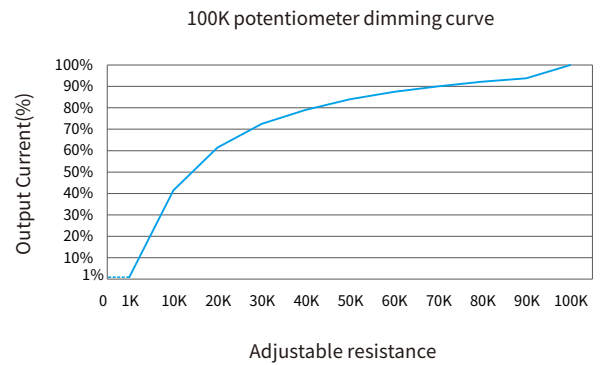
Wiring diagram



Remarks

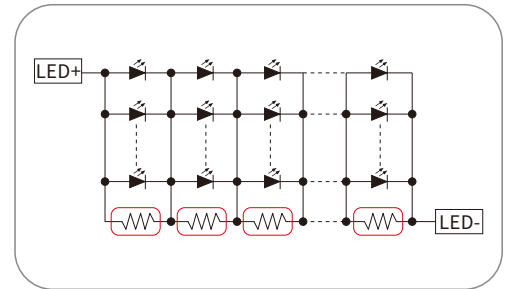
- In the 100K potentiometer dimming mode, the potentiometer can only be connected to one driver.

Dimming curve



Notice

- When using PWM to turn off the LED, the LED may be slightly light, It can be solved in the following two ways:
 1. When the PWM dimming signal is 0%, the LED driver has no output, but there exists junction capacitance between the aluminum substrate's copper foil and the grounding wire, which will make the LEDs glow slightly. Thus, it is necessary to respectively attach a resistor to every node of LED beads in parallel, and the resistance should match for the parameters of aluminum substrate and LEDs. (reference resistance: 3-5K Ω /size: 1206) The parallel connection is shown on the right:
 2. Disconnect the input live wire (L wire) of the driver through the switch.
- Because the output no-load voltage is high, pay attention to the following applications
 1. It is prohibited to plug and unplug LED loads under powered conditions.
 2. It is prohibited to switch color temperature through sliding switches under powered conditions.

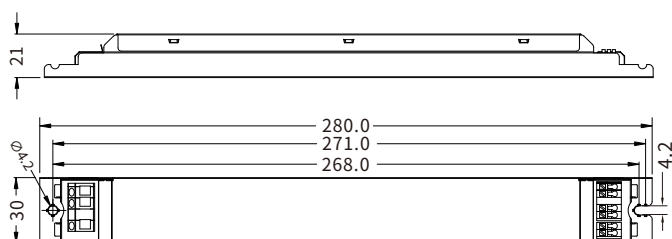


Mechanical Specification

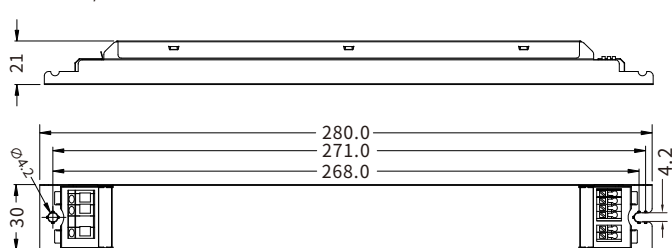
Size(Excluding accessories)

Unit:mm

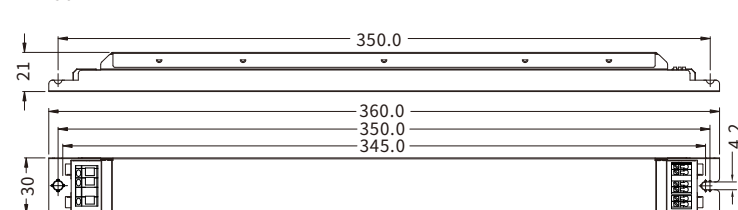
MAN040-A



MAN075-A/MAN100-A



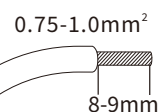
MAN150-A



INPUT

Numbering	function	colour
1	ACL/DC+	orange
2	ACN/DC-	orange
3	NC	grey
4	FG	grey

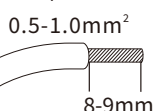
Input wire



OUTPUT(MAN040-A/MAN150-A)

Numbering	function	colour
1	LED+	red
2	LED-	black
3	NC	black
4	DIM-	grey
5	DIM+	green

Output wire



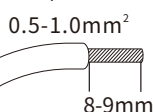
OUTPUT(MAN075-A/MAN100-A)

Numbering	function	colour
1	LED+	red
2	LED-	black
3	DIM-	grey
4	DIM+	green

External dialing

Numbering	function	colour
1	SW-A	green
2	SW-B	black

Output wire



Installation note

Hot plug-in

- Hot plug-in is not supported due to residual output voltage of > 0 V.

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.
- The temperature of the mounting surface of the driver should be lower than the temperature of Ta.
- The driver should keep a certain distance from the heating stuff (such as the luminaire radiator).

Wiring guidelines

- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance).
- Max. length of output wires is 2 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

Packaging



Model	Product size	Weight	Paper tray	Carton size	Qty/carton	N.W	G.W
MAN040-A	L280*W30*H21mm	162g	L340*W75*H29mm	L355*W325*H170mm	35pcs	5.67kg	6.99kg
MAN100-A	L280*W30*H21mm	194g	L340*W75*H29mm	L355*W325*H170mm	35pcs	6.79kg	8.15kg
MAN100-A	L280*W30*H21mm	203g	L340*W75*H29mm	L355*W325*H170mm	35pcs	7.11kg	8.45kg
MAN150-A	L360*W30*H21mm	263g	L340*W75*H29mm	L395*W355*H140mm	28pcs	7.36kg	8.26kg

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.