

Constant Current Dimmable Driver

Model: CC44W300-1050 DALI



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency (typ.)*	Output Voltage	No load Voltage
CC44W300-1050 DALI	300mA	0.12A	17.13W	2.70-14.70W	0.86	85.8%	9-49V	59V
	350mA	0.13A	19.83W	3.15-17.15W	0.87	86.5%	9-49V	59V
	400mA	0.14A	22.53W	3.60-19.60W	0.88	87.0%	9-49V	59V
	450mA	0.15A	25.20W	4.05-22.05W	0.89	87.5%	9-49V	59V
	500mA	0.16A	27.90W	4.50-24.50W	0.90	87.8%	9-49V	59V
	550mA	0.17A	30.62W	4.95-26.95W	0.91	88.0%	9-49V	59V
	600mA	0.18A	33.41W	5.40-29.40W	0.92	88.0%	9-49V	59V
	650mA	0.19A	36.19W	5.85-31.85W	0.93	88.0%	9-49V	59V
	700mA	0.21A	38.97W	6.30-34.30W	0.94	88.0%	9-49V	59V
	750mA	0.22A	40.90W	6.75-36.00W	0.94	88.0%	9-48V	59V
	800mA	0.22A	40.90W	7.20-36.00W	0.95	88.0%	9-45V	59V
	850mA	0.23A	43.46W	7.65-38.25W	0.95	88.0%	9-45V	59V
	900mA	0.24A	46.02W	8.10-40.50W	0.95	88.0%	9-45V	59V
	950mA	0.24A	45.34W	8.55-39.90W	0.95	88.0%	9-42V	59V
	1000mA	0.25A	47.72W	9.00-42.00W	0.95	88.0%	9-42V	59V
	1050mA	0.26A	50.11W	9.45-44.10W	0.95	88.0%	9-42V	59V

* Test result @230V, 50Hz, Full Load

1. Parameters

category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI-2 / Touch DIM
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II (compatible Class I)
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC
	Range of DC Input Voltage	180-280VDC
	Frequency	0/50/60Hz, Range:0/47-63Hz
	Input Current	≤0.26A (230VAC, full load)
	Input Power	≤50.11W (230VAC, full load)
	Power Factor	≥0.95 (230VAC, full load)
	THD	≤15% (230VAC, full load)
	Standby Power Consumption	≤0.45W Dim to off, 230VAC
	Inrush Current	≤20A/29us (230VAC, full load)
	Connected quantity of 10A Breaker	10pcs/type A ; 16pcs/type B ; 25pcs/type C
	Connected quantity of 16A Breaker	16pcs/type A; 25pcs/type B ; 40pcs/type C
Connected quantity of 20A Breaker	20pcs/type A; 31pcs/type B ; 50pcs/type C	
Output	Output Voltage Range	9-49VDC@300-700mA 9-48VDC@750mA 9-45VDC@800-900mA 9-42VDC@950-1050mA
	No Load Voltage	59VDC Max.
	Output Current	300-1050mA
	Max. Output Power	44.1W
	Efficiency	≥88% 230VAC, full load@max current
	Output LF current ripple (< 120 Hz)	±3% (Imax-Imin) / (Imax+Imin)
	Current Accuracy	±5%
	PSTLM	≤1
	SVM	≤0.4
	Starting Time (AC mode)	≤0.8S (230VAC, full load, by DALI system)
	Starting Time (DC mode)	≤0.4S
	Switching over time (AC/DC)	≤0.4S
Control Method	PUSH dimming	PUSH dimming (Max. lead wire length: 20m, same port of DALI)
	DALI function	DALI dimming (Max. lead wire length : 30m) logarithm or linear dimming curve selectable
	Dimming range	DALI dimming: 1%-100%
Protection	Short Circuit Protection	Auto Recovery
	Overload Protection	Auto Recovery (not be hot swap)
	No-load Protection	Auto Recovery
	Insulation voltage	3000V 5mA 60S between P-S
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	< 700μA, I/P to O/P @230V input

Environment	Ta/Operation Temperature	-25....+45°C@300-1000mA ; -20....+40°C@1050mA
	Ts/Storage Temperature	-40....+85°C
	Tc/Enclosure Temperature	85°C
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Built-in
	PRI Wire preparation	0.5-1.5 [□] / 8-9mm
	SEC Wire preparation	0.5-1.5 [□] / 8-9mm
	DALI Wire preparation	0.5-1.5 [□] / 8-9mm
	Dimension	97.5*44*23mm (L*W*H)
Standards	Certification	CE/ENEC/SAA/UKCA/EAC
	Safety Standards	EN61347-1:2015/A1:2021; EN61347-2-13:2014/A1:2017; EN62384:2006/A1:2009; AS 61347.2.13:2018; AS/NZS61347.1:2016; BS EN61347-1:2015/A1:2021; BS EN61347-2-13:2014/A1:2017; IEC 61347-1:2015+A1:2017; IEC 61347-2-13:2014+A1:2016;
	EMC Standards	AS/NZS CISPR 15:2011; AS CISPR 15:2017 ; BS EN IEC 55015:2019+A11:2020; EN 61547:2009; BS EN IEC 61000-3-2:2019; BS EN 61000-3-3:2013+A1:2019;
	Performance	EN62384
	DALI performance	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2, including part 251, 252, 253)
	Surge	L/N-Ground:2kV; L-N:1kV
	Others	RoHS
	Life Time	50000h Tc=85°C
		75000h Tc=80°C
		100000h Tc=75°C
	Warranty	5years, F.R. <10000ppm

Remark:

- 1.All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.
- 2.LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
3. Please make sure Tc under Lifetime condition when long term operate under DC input.
4. Light output level in DC operation: (factory default = 100 %, EOFi = 1).

2. Label

KGP **CC44W300-1050 DALI** LED Dimmable Driver
 Constant Current LED Power Supply $t_c: 85^\circ\text{C}$ $t_a: 45^\circ\text{C}$ (44.1W $t_a: 40^\circ\text{C}$)
 PRI: 220-240VAC 180-280VDC SEC: 300-700mA 9-49VDC 800-900mA 9-45VDC
 0/50/60Hz 0.26A Max. 750mA 9-48VDC 950-1050mA 9-42VDC

KGP Electronics GmbH
 Hueckstraße 19
 DE-58511 Lüdenscheid

P _{out} [W]	I _{out} [mA]	λ	1	2	3	4	P _{out} [W]	I _{out} [mA]	λ	1	2	3	4
14.7	300	0.86C	-	-	-	-	34.3	700		ON	-	-	-
17.2	350	0.87C	-	-	-	ON	36.0	750	0.94C	ON	-	-	ON
19.6	400	0.88C	-	-	ON	-	36.0	800	tc	ON	-	ON	-
22.1	450	0.89C	-	-	ON	ON	38.3	850	0.95	ON	-	ON	ON
24.5	500	0.90C	-	ON	-	-	40.5	900		ON	ON	-	-
27.0	550	0.91C	-	ON	-	ON	39.9	950		ON	ON	-	ON
29.4	600	0.92C	-	ON	ON	-	42.0	1000		ON	ON	-	-
31.9	650	0.93C	-	ON	ON	ON	44.1	1050		ON	ON	ON	ON

wire preparation (8-9mm)

PRI: 0.5-1.5°
 DALI: 0.5-1.5°
 SEC: 0.5-1.5°

EL

DIM ● L ● DA ● DA

PUSH-CONTROL

AM DIMMING

SELV

EAC UK CA CE

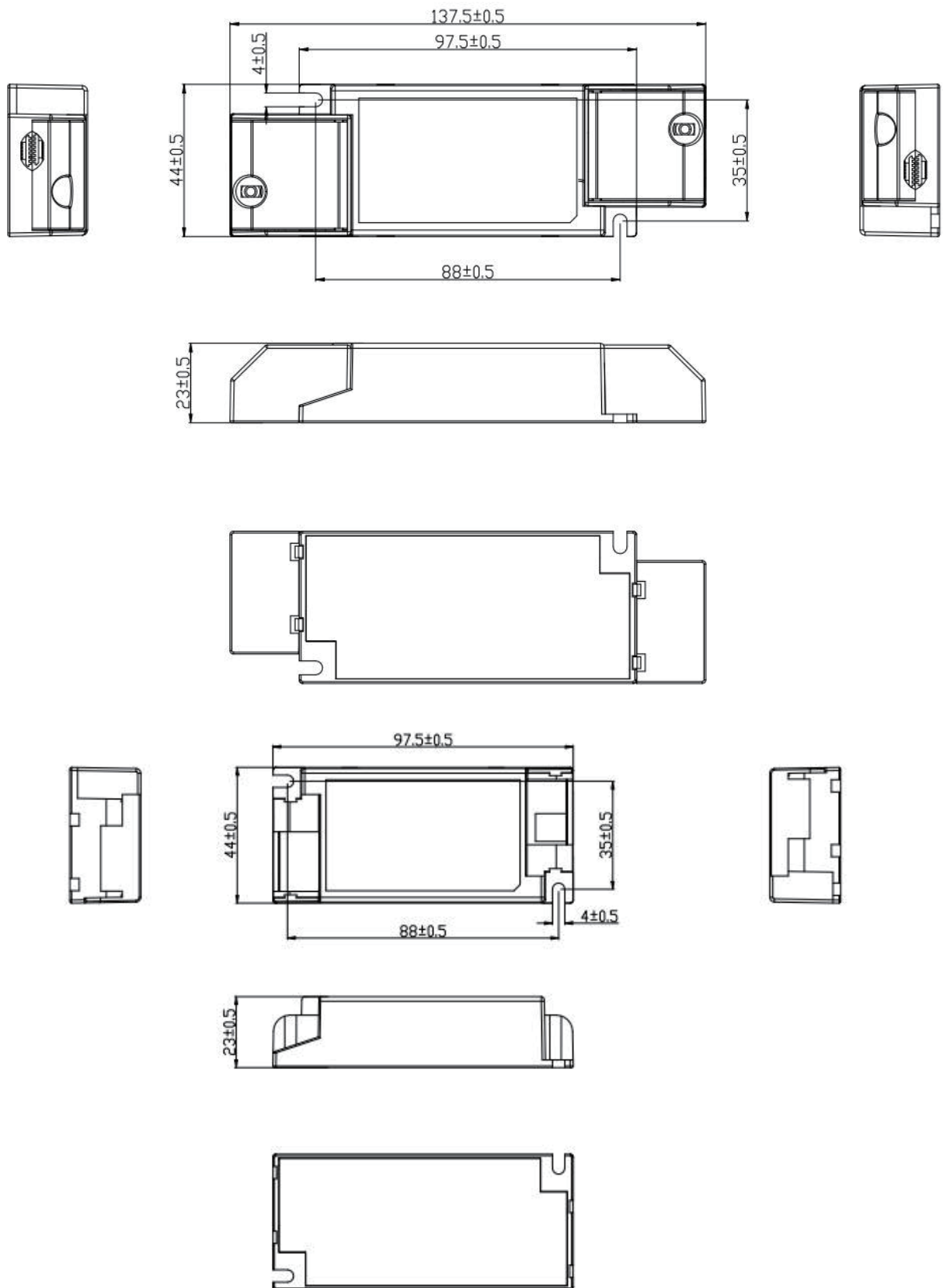
LED Only

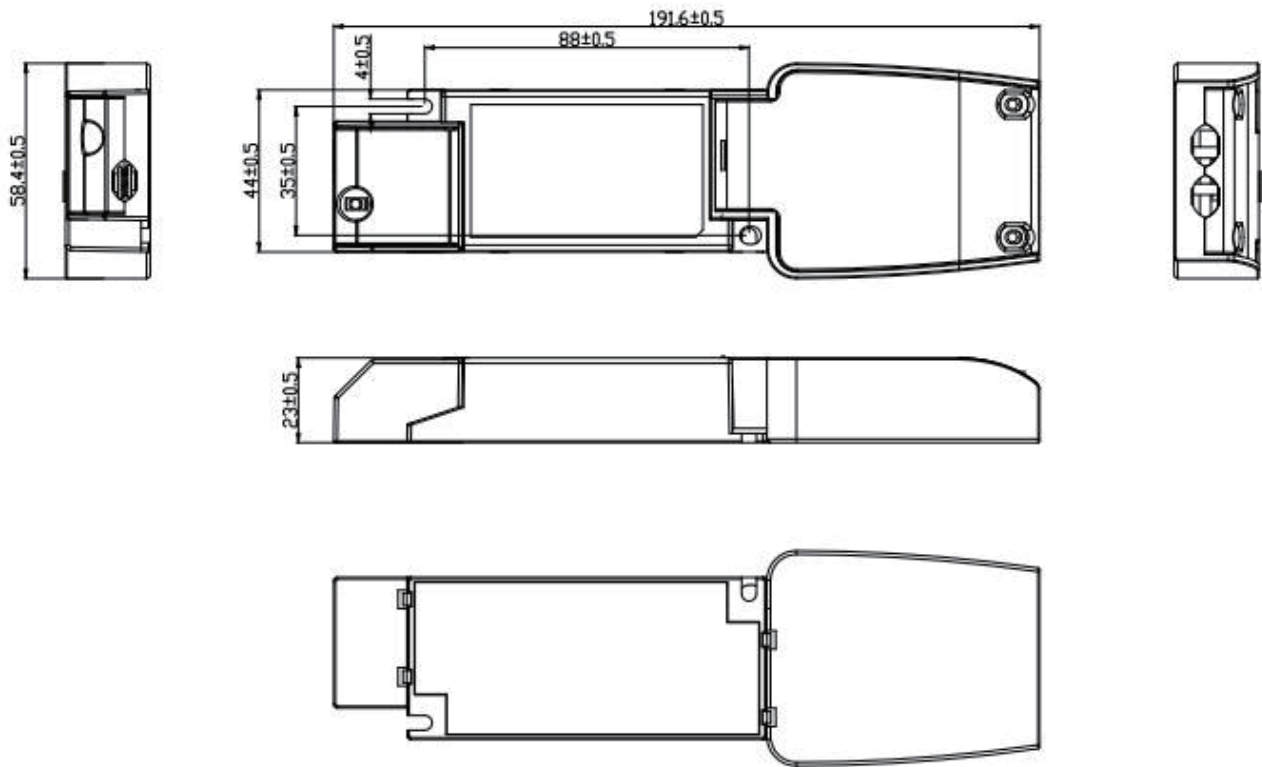
U_{out}=59V
 44.1W Max.

3. Output Current Setting

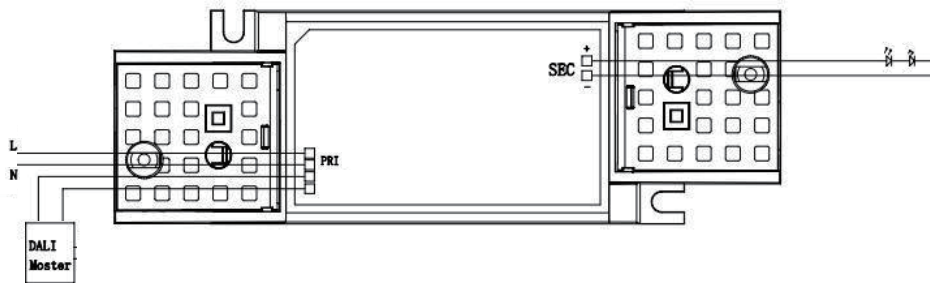
Output Current	1	2	3	4
300mA	-	-	-	-
350mA	-	-	-	ON
400mA	-	-	ON	-
450mA	-	-	ON	ON
500mA	-	ON	-	-
550mA	-	ON	-	ON
600mA	-	ON	ON	-
650mA	-	ON	ON	ON
700mA	ON	-	-	-
750mA	ON	-	-	ON
800mA	ON	-	ON	-
850mA	ON	-	ON	ON
900mA	ON	ON	-	-
950mA	ON	ON	-	ON
1000mA	ON	ON	ON	-
1050mA	ON	ON	ON	ON

4. Dimension

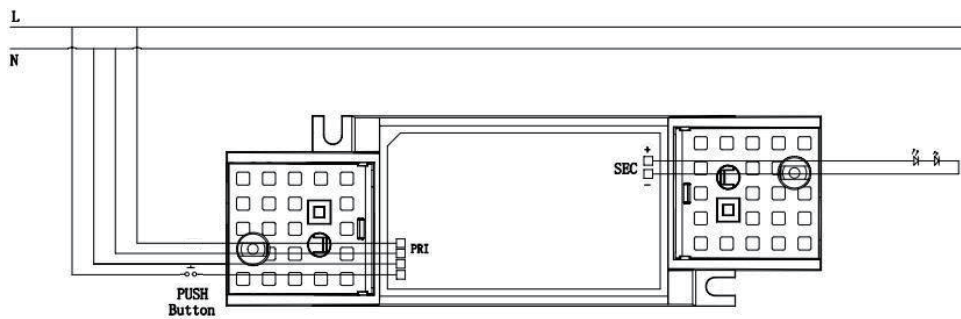




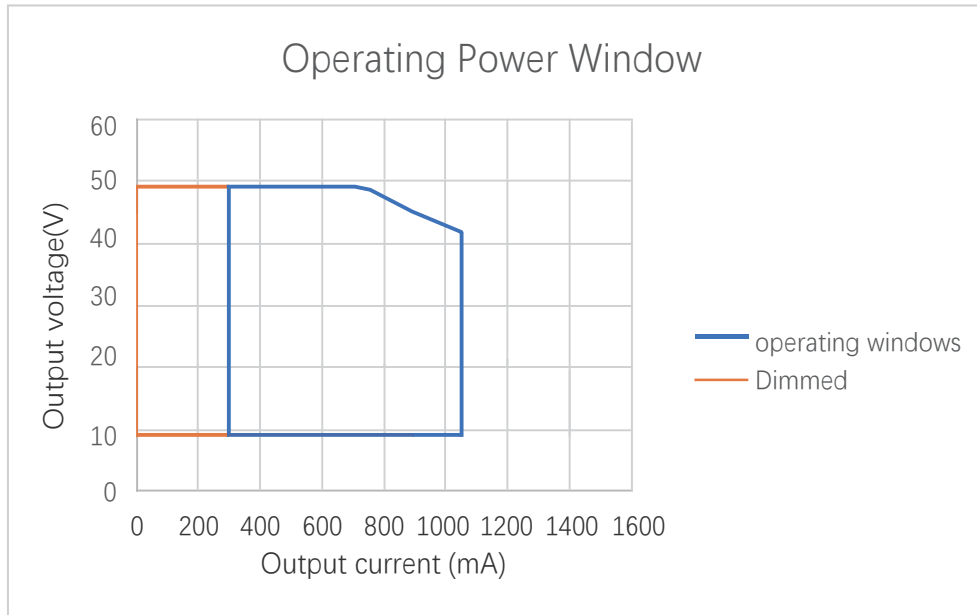
5. Wiring Diagram



Push Dimming



6. Output Power Window



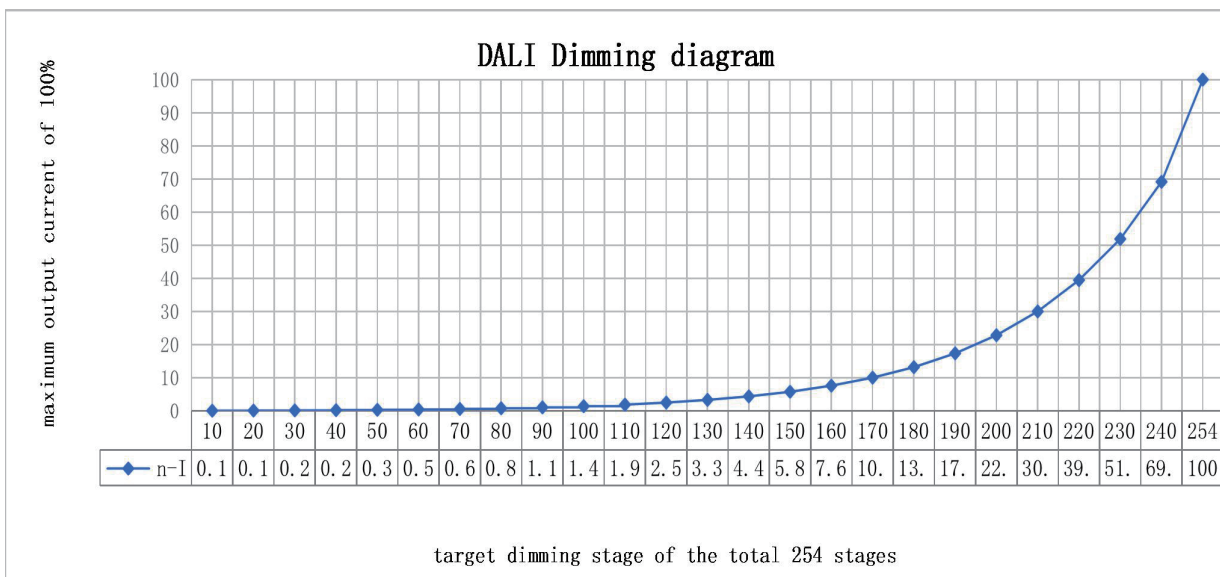
7. DALI dimming curve

formula for DALI dimming.

$$X(n) = 10^{\frac{n-1}{253/3} - 1}$$

Here, n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current



8. Packing information**SC**

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
398*230*130	100	0.118	11.78	12.18

Small side cover

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
395*295*125	64	T.B.D	T.B.D	T.B.D

Large side cover

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
T.B.D	T.B.D	T.B.D	T.B.D	T.B.D

9. Push Dim :**9.1 On / off:**

Short push (120ms-600ms) on the switch

Stepless dimming: long push (> 0.6sec) on the switch

9.2 Power-on memory function

When the LED driver is powered on, it will restore the memory before the LED driver is powered off. (brightness remembers the brightness after the last dimming is stable, and the brightness during dimming is not memorized)

9.3 Light on/off

If the light is on, the light will be off after a short press. If the light is off, the light will be on after a short press. The time range of short press is 120-600mS.

9.4 PUSH Dimming

Press and hold the push switch for a long time, the light will enter the dimming state, if the previous time is dimming, it will automatically turn to dimming the next time. After releasing the reset button, the dimming stops and the current illuminance is maintained. The dimming range is 1%-100%. The default is to dim when the power is first long-press. If the brightness of the power-on is the maximum brightness, the first long-press is to dim. (Long press 0.6-3S to start dimming.)

9.5 Forced synchronization

Long press for 10 seconds to turn on all the lights and turn on the same brightness (50%), and continue to quickly short press will not change. After a short period of time without short press operation, the module exits the synchronization mode, and the short press restores the switch function.

9.6 PUSH Dimming rate

Long press the push switch 10S to switch the dimming rate to 3S, Long press the push switch 20S to switch the dimming rate to 6S, and it can also be changed by MAGIC or production software.

10. REVISION HISTORY

Date	Revision	Remark