

# **TITAN X**

**Corrosion Proof LED Battens**



**Corrosion  
Proof**

**TITAN X**

Versions available

• 600 & 1200 mm  
• EM / SN / EM & SN

• DALI  
• Yellow & green

# TITAN X

## Corrosion Proof LED Battens



### Product information

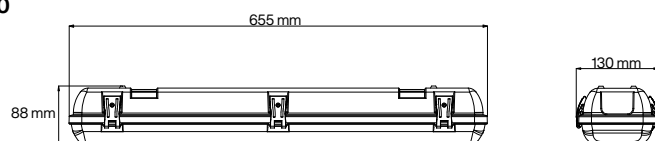
The next generation of Titan fittings, the Titan X, has been designed to be even tougher and pack in more features than before. Standard features include: 3 colour selection, multiple power settings, giant terminal blocks, marine grade external hardware, multiple side and rear entry points, and a wide mounting footprint. Sensor models feature 0-10V dimmable drivers with the sensor being tuneable for sensitivity, time, luminance, and a variety of holding patterns. Our innovative Yellow / Green version can switch between yellow or green by the user with an internal switch. Emergency version available on the standard, sensor, and yellow/green models. DALI drivers available as an accessory kit. All of this packed inside an IK10 IP65 housing with 316 stainless steel clips and backed by our 5 year warranty (1 year for EM batteries).



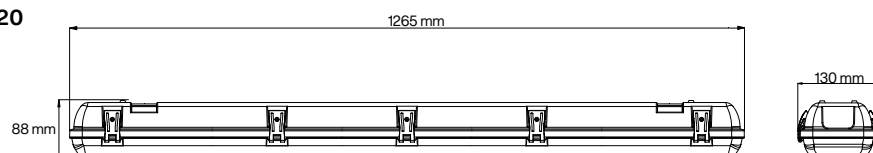
### TECHNICAL INFORMATION STANDARD MODELS

	ML-TN60-X-M	ML-TN60-X-M-EM	ML-TN60-X-M-SN	ML-TN60-X-M-SE	ML-TN120-X-M	ML-TN120-X-M-EM	ML-TN120-X-M-SN	ML-TN120-X-M-SE
Total Power:	MAX 20W*	MAX 23W*	MAX 20W*		MAX 40W*	MAX 43W*	MAX 40W*	
Power selection :	11W/14W/ 17W/20W	13W/16W/ 20W/23W	16W/20W		20W/27W/ 34W/40W	23W/30W/ 37W/43W	25W/40W	
MAX Lumen Output:	WW 2215lm NW 2530lm W 2430lm	WW 2000lm NW 2200lm W 2100lm		WW 2114lm NW 2274lm W 2120lm	WW 4515lm NW 4800lm W 4600lm	WW 4515lm NW 4900lm W 4730lm	WW 4200lm NW 4800lm W 4400lm	WW 4000lm NW 4600lm W 4400lm
Colour Temp:	WW 3000K NW 4000K W 6500K				WW 3000K NW 4000K W 6500K			
IP Rating:	IP65				IP65			
Efficacy:	WW 105 lm/w NW 125 lm/w W 115 lm/w	WW 95 lm/w NW 105 lm/w W 100 lm/w	WW 100 lm/w NW 110 lm/w W 105 lm/w	WW 90 lm/w NW 100 lm/w W 90 lm/w	WW 105 lm/w NW 120 lm/w W 115 lm/w	WW 105 lm/w NW 120 lm/w W 110 lm/w	WW 105 lm/w NW 120 lm/w W 110 lm/w	WW 100 lm/w NW 115 lm/w W 105 lm/w
CRI:	80				80			
Beam Angle:	120°				120°			
Temp Range:	- 20° to +50°C	0° to +50°C	- 20° to +50°C	0° to +50°C	- 20° to +50°C	0° to +50°C	- 20° to +50°C	0° to +50°C
Dimmable:	NO		YES (1 - 10V)		NO		YES (1 - 10V)	
Power Supply:	Osram driver, 220-240V AC 50/60Hz		Boke driver , 220 - 240V AC 50/60Hz		Osram driver, 220-240V AC 50/60Hz		Boke driver , 220 - 240V AC 50/60Hz	
Average Life:	50,000 hrs**				50,000 hrs**			
Input / Inrush	0 . 085/35A	0 . 096/35A	0 . 09/3 . 25A	0 . 1/3 . 25A	0 . 17/50A	0 . 18/50A	0 . 17/3 . 3A	0 . 18A/3 . 3A
Power Factor :	>0.9				>0.9			
IK Rating	IK10				IK10			
Dimensions:	655*130*88mm				1265*130*88mm			
Weight:	1.1KG	1.3KG	1.2KG	1.4KG	1.9KG	2.2KG	2.1KG	2.3KG
Warranty:	5 years (1 year for EM batteries)				5 years (1 year for EM batteries)			

#### TITAN X 60



#### TITAN X 120



\*Total power consumed including driver

\*\* Average life is calculated on expected average lifespan, Emergency and Sensor Model 30,000 hrs

## TECHNICAL INFORMATION YELLOW AND GREEN MODELS

	ML-TN60-X-YG	ML-TN60-X-YG-EM	ML-TN60-X-YG-SN	ML-TN60-X-YG-SE	ML-TN120-X-YG	ML-TN120-X-YG-EM	ML-TN120-X-YG-SN	ML-TN120-X-YG-SE
Total Power:	MAX 20W*	MAX 23W*	MAX 20W*		MAX 40W*	MAX 43W*	MAX 40W*	
Power selection :	11W/14W/ 17W/20W	13W/16W/ 20W/23W	16W/20W		20W/27W/ 34W/40W	23W/30W/ 37W/43W	25W/40W	
MAX Lumen Output:	G 1743lm Y 1683lm				G 3590lm Y 3476lm			
IP Rating:	IP65				IP65			
Efficacy:	G 94lm/w Y 91lm/w				G 83lm/w Y 80lm/w			
Beam Angle:	120°				120°			
Temp Range:	-20° to +50°C	0° to +50°C	-20° to +50°C	0° to +50°C	-20° to +50°C	0° to +50°C	-20° to +50°C	0° to +50°C
Dimmable:	NO		YES (1 - 10V)		NO		YES (1 - 10V)	
Power Supply:	Osram driver, 220-240V AC 50/60Hz		Boke driver , 220 - 240V DC 50/60Hz		Osram driver, 220-240V AC 50/60Hz		Boke driver , 220 - 240V DC 50/60Hz	
Average Life:	50,000 hrs**				50,000 hrs**			
Input / Inrush	0 . 085/35A	0 . 096/35A	0 . 09/3 . 25A	0 . 1/3 . 25A	0 . 17/50A	0 . 18/50A	0 . 17/3 . 3A	0 . 18/3 . 3A
Power Factor :	>0.9				>0.9			
IK Rating	IK10				IK10			
Dimensions:	655*130*88mm				1265*130*88mm			
Weight:	1.1KG	1.3KG	1.2KG	1.4KG	1.9KG	2.2KG	2.1KG	2.3KG
Warranty:	5 years (1 year for EM batteries)				5 years (1 year for EM batteries)			

\*Total power consumed including driver

\*\* Average life is calculated on expected average lifespan, Emergency and Sensor Model 30,000 hrs

# TITAN X Battens

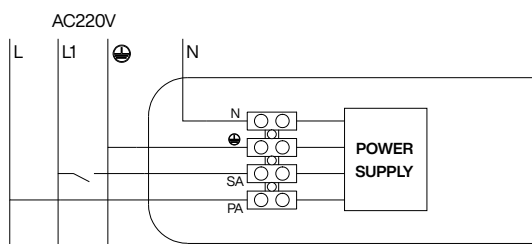
## PLEASE NOTE!

### MUST BE INSTALLED BY LICENSED ELECTRICIAN

- Do not extend low voltage cables from the output of the power supply.
- All components must not be mechanically stressed.
- Be careful not to damage or destroy conducting paths on the circuit board.
- Follow all relevant electrical and safety standards (Including AS3000) – only qualified personnel should be allowed to perform installations.
- Damage by corrosion will not be honored as a material defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture, condensation and other harmful elements.
- If these regulations are not followed warranty will be void and all issues are the responsibility of the installer.

For further information please visit [www.melec.com.au](http://www.melec.com.au)

## WIRING DIAGRAM



- L: Emergency power (Permanent Active)  
Must be connected for EM to operate
- L1: Switched / Light input (switched active), loop with L for permanently on. Must be on same phase as L

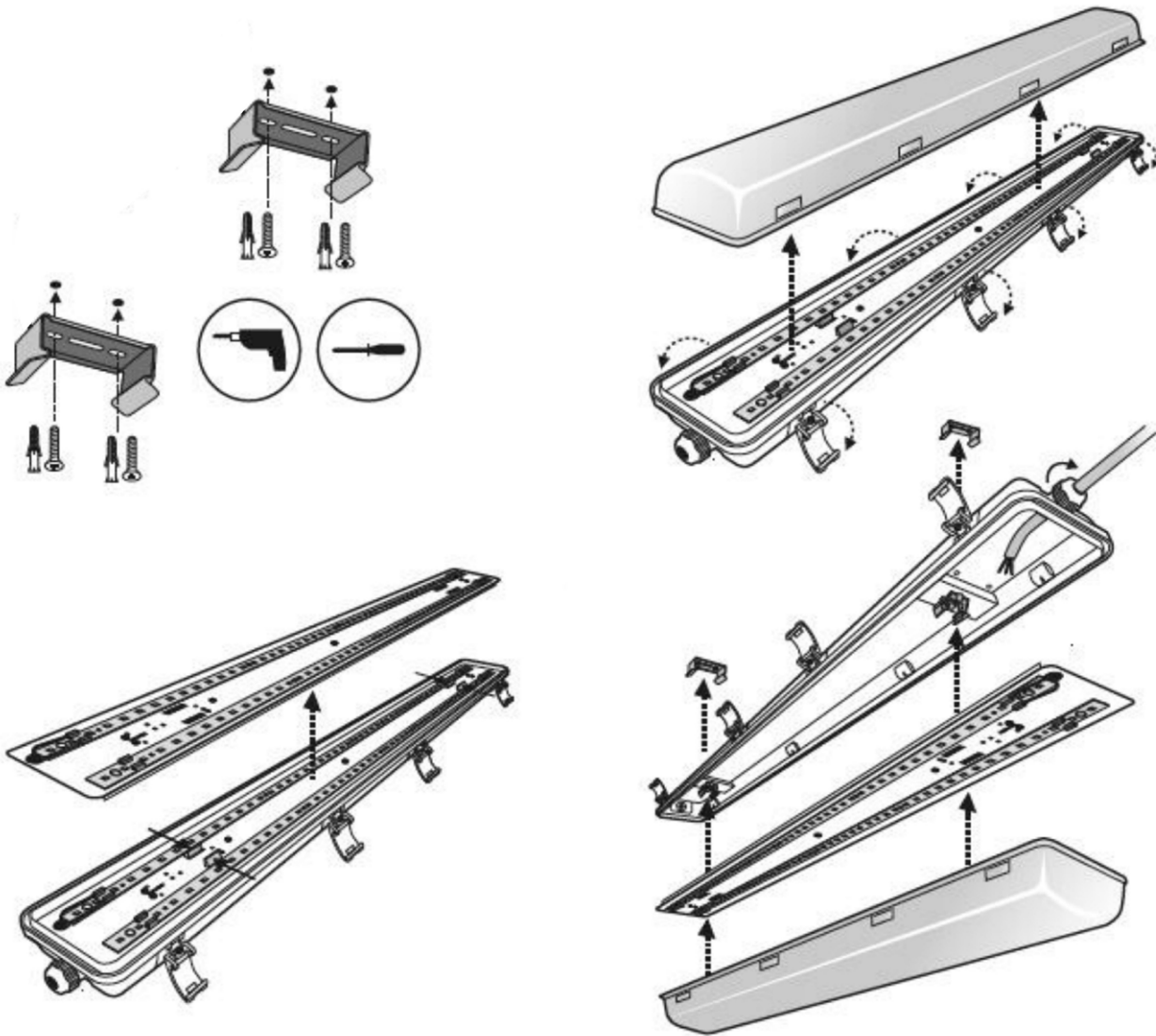
If this fitting has an EM module installed it will require 24hrs for the battery to fully charge. This fitting will run for up to 3 hrs at 3W of power if emergency mode is engaged.

## INSTALLATION INSTRUCTIONS

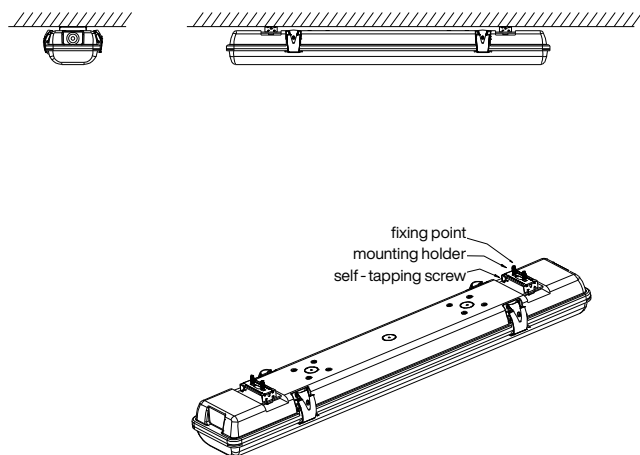
1. Turn power off before commencing installation.
2. Always use suitable fixings for your type of installation.
3. Fix TITAN directly through the back of the unit but be sure to seal all penetrations to prevent water ingress, install the fixing clamp on the location where the TITAN is to be installed (surface mounted or suspended).
4. When running cables into the fitting ensure you use a suitable sealant to prevent any future water penetration.

5. Wire TITAN according to the labels on the terminal.
6. Install gear tray onto internal clips.
7. Install cover onto base and ensure there is an even seal.
8. Test and commission.

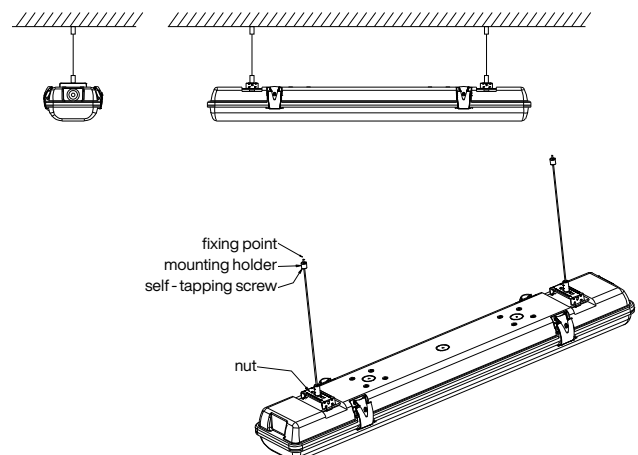
Suggested installation height (for sensor models):  
Wall installation: 1-2m  
Ceiling installation: 2.5-6m.



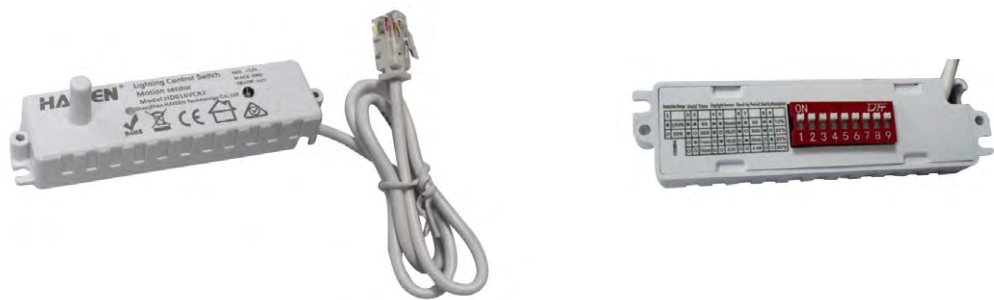
### SURFACE MOUNT



### SUSPENDED



MICROWAVE SENSOR

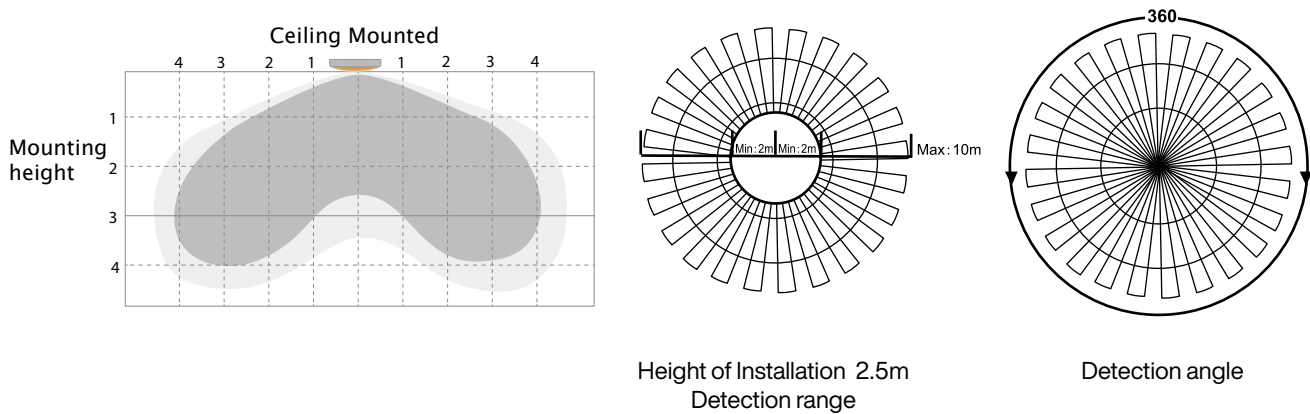


SPECIFICATIONS

Power source:	12V DC
Transmission power:	<0.2mW
HF system:	5.8GHz ± 75MHz
Detection angle:	360°
Detection range:	ø4 - 10m
Installation:	Indoors   Ceiling   Mounting height 2.5 - 4m
Working temperature:	-20°C to +60°C
Stand - by power:	Approx 0.5W

Time setting:	5 Sec ± 3 Sec 30 Sec ± 10 Sec 1 Min ± 30 Sec 10 Min ± 1 Min (ADJUSTABLE)
Light Control:	2 Lux   10 Lux 50 Lux   DISABLED (ADJUSTABLE)
Stand - by period :	0 Sec   30 Sec 20 Min   + ∞
Sy tand - by dimming level :	10%   20%   30%   50% (ADJUSTABLE)

SENSOR INFORMATION



PARAMETER SETTING

There are 4 adjustments available to this sensor:

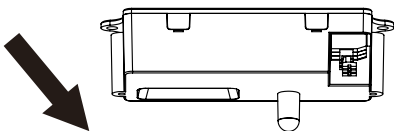
- 1 . Sensitivity for the detection range of the sensor (S1).
- 2 . On time of the light (S2 + S3).
- 3 . Light level settings (S4 + S5).
- 4 . Stand-by period ( S6 + S7)
- 5 . Stand-by dimming level (S8 + S9)

When WHITE DOT is listed on the instructions below it means the dip switch is OFF (down toward the number).  
When BLACK DOT is listed it means the dip switch is ON (up toward ON).



PLEASE NOTE!

The high - frequency output of this sensor is <0.2mW - that is just one 5000th of the transmission power of a mobile phone or the output of a microwave oven.



Transmission power <0. 2mW



## DETECTION RANGE (SENSITIVITY)

Detection range is the term used to describe the detection zone produced on the ground after mounting the sensor light. This range listed below is given as a guide and assumes the mounting height is 2.5m from ground level.

S1	Detection range
●	5m
○	10m

When using this product please adjust the sensitivity to an appropriate position you need. The following may prevent the motion detection from working normally: blowing leaves, curtains, small animals or even power grid & electrical equipment. If this should happen, simply try to lower the sensitivity appropriately and then test it.

## LIGHT LEVEL SETTINGS (LUX)

Lux settings can be adjusted so that the sensor will only operate the light when minimum light settings are reached. Alternatively you can set the sensor to 'DISABLE' allowing the sensor to operate continuously.

Adjust the dip switches according to the desired time settings shown in the chart below:

S4	S5	LUX
●	●	DISABLE
●	○	50 LUX
○	●	10 LUX
○	○	2 LUX

## STAND - BY DIMMING LEVEL

Dim level can be adjusted during standby period.

Adjust the dip switches according to the desired dim level settings shown in the chart below:

S8	S9	DIM LEVEL
●	●	10 %
●	○	20 %
○	●	30%
○	○	50%

## TIME SETTING (ON TIME)

The light can be set to stay ON for periods of time between 5 seconds to 10 minutes. Any movements detected before this time elapses will result in the timer being restarted. Adjust the dip switches according to the desired time settings shown in the chart below.

### PLEASE NOTE!

After the light switches OFF it takes approximately 4 sec before it is able to start detecting movement again.

The light will only switch ON in response to movement detected once this period has elapsed.

S2	S3	Time
●	●	5 sec
●	○	30 sec
○	●	1 min
○	○	10 min

## STAND - BY PERIOD

Stand - by period is a time setting , that keeps the light at preset dimmed level before switching it completely off . Setting it to ∞ , the light will be dimmed to a preset dimming level indefinitely (or until movement is detected) .

S6	S7	TIME
●	●	0 sec
●	○	30 sec
○	●	20 min
○	○	∞



**WARNING** The following installation situation will lead to nuisance operation!

1. Being installed unevenly or prone to movement (such as loose suspension in a windy area).
2. Moving objects such as curtains.
3. Frequent traffic (people, cars or other objects).
4. Sparks or moving electrical equipment.

EMERGENCY VERSION

PLEASE READ INSTRUCTIONS BEFORE COMMENCING INSTALLATION AND RETAIN FOR FUTURE REFERENCE.

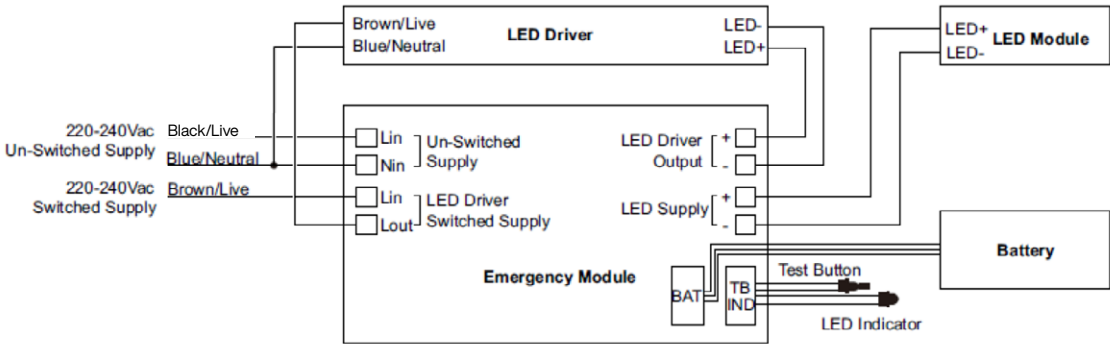
TESTING

The emergency lighting must be inspected and tested regularly in accordance with regulations and laws. We suggest the following as a minimum.

PLEASE NOTE!

After initial installation please allow 24 hours to ensure the battery is fully charged before commencing tests.

- 1. Daily check that charge indicator LED is working.
- 2. Monthly, interrupt mains for a short period and check LED lights.
- 3. Annual 12 month check, full duration test (longer then 2 hours). Batteries or the fitting should be replaced if they fail to last the 2 hours.
- 4. Complete record sheet on installation and retain in maintenance file.
- 5. Update file with ongoing test records for inspection by fire officer or other duly authorised person.



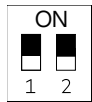
PLEASE NOTE!

- Take note of the requirement to dispose of Waste Electrical & Electronic Equipment separately from household waste (WEEE marked with a crossed out wheelie bin symbol).
- Product technical information and specification may change over time without prior notification. For the latest technical information please visit our web site [www.melec.com.au](http://www.melec.com.au)

POWER SELECTION

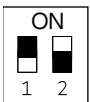
Default 25W:

200mAh



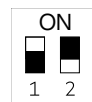
Switch 1=OFF  
Switch 2=OFF

250mAh



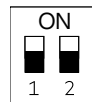
Switch 1=OFF  
Switch 2=ON

300mAh



Switch 1=ON  
Switch 2=OFF

350mAh

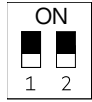


Switch 1=ON  
Switch 2=ON

OUTPUT CURRENT	MAX POWER
200 mA	10 W
250 mA	13 W
300 mA	16 W
350 mA	19 W

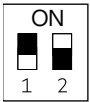
Default 45W:

200mAh



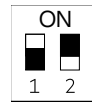
Switch 1=OFF  
Switch 2=OFF

250mAh



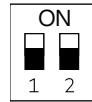
Switch 1=OFF  
Switch 2=ON

300mAh



Switch 1=ON  
Switch 2=OFF

350mAh



Switch 1=ON  
Switch 2=ON

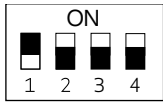
OUTPUT CURRENT	MAX POWER
200 mA	24 W
250 mA	30 W
300 mA	36 W
350 mA	42 W



POWER SELECTION - SENSOR MODELS

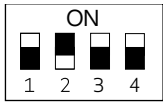
Sensor 30W:

350mAh



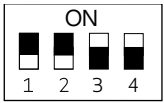
Switch 1=OFF  
Switch 2 =ON  
Switch 3=ON  
Switch 4 =ON

400mAh



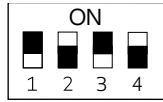
Switch 1=ON  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =ON

450mAh



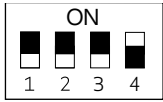
Switch 1=OFF  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =ON

500mAh



Switch 1=OFF  
Switch 2 =ON  
Switch 3=OFF  
Switch 4 =ON

550mAh



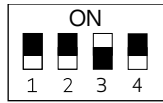
Switch 1=OFF  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =ON

600mAh



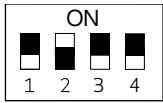
Switch 1=ON  
Switch 2 =ON  
Switch 3=ON  
Switch 4 =OFF

650mAh



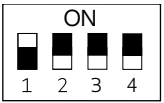
Switch 1=OFF  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =OFF

700mAh



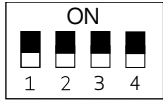
Switch 1=OFF  
Switch 2 =ON  
Switch 3=OFF  
Switch 4 =OFF

750mAh



Switch 1=ON  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =OFF

800mAh

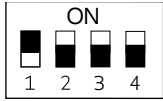


Switch 1=OFF  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =OFF

OUTPUT CURRENT	MAX POWER
350 mA	15W
400 mA	17W
450 mA	19W
500 mA	21W
550 mA	23W
600 mA	25W
650 mA	27W
700 mA	29W
750 mA	30W
800 mA	31W

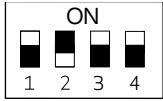
Sensor 40W:

600mAh



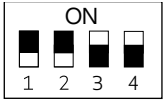
Switch 1=OFF  
Switch 2 =ON  
Switch 3=ON  
Switch 4 =ON

650mAh



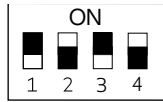
Switch 1=ON  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =ON

700mAh



Switch 1=OFF  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =ON

750mAh



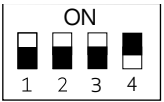
Switch 1=OFF  
Switch 2 =ON  
Switch 3=OFF  
Switch 4 =ON

800mAh



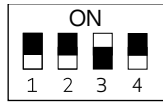
Switch 1=OFF  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =ON

850mAh



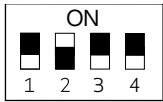
Switch 1=ON  
Switch 2 =ON  
Switch 3=ON  
Switch 4 =OFF

900mAh



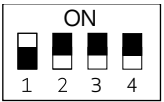
Switch 1=OFF  
Switch 2 =OFF  
Switch 3=ON  
Switch 4 =OFF

950mAh



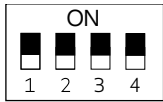
Switch 1=OFF  
Switch 2 =ON  
Switch 3=OFF  
Switch 4 =OFF

1000mAh



Switch 1=ON  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =OFF

1050mAh

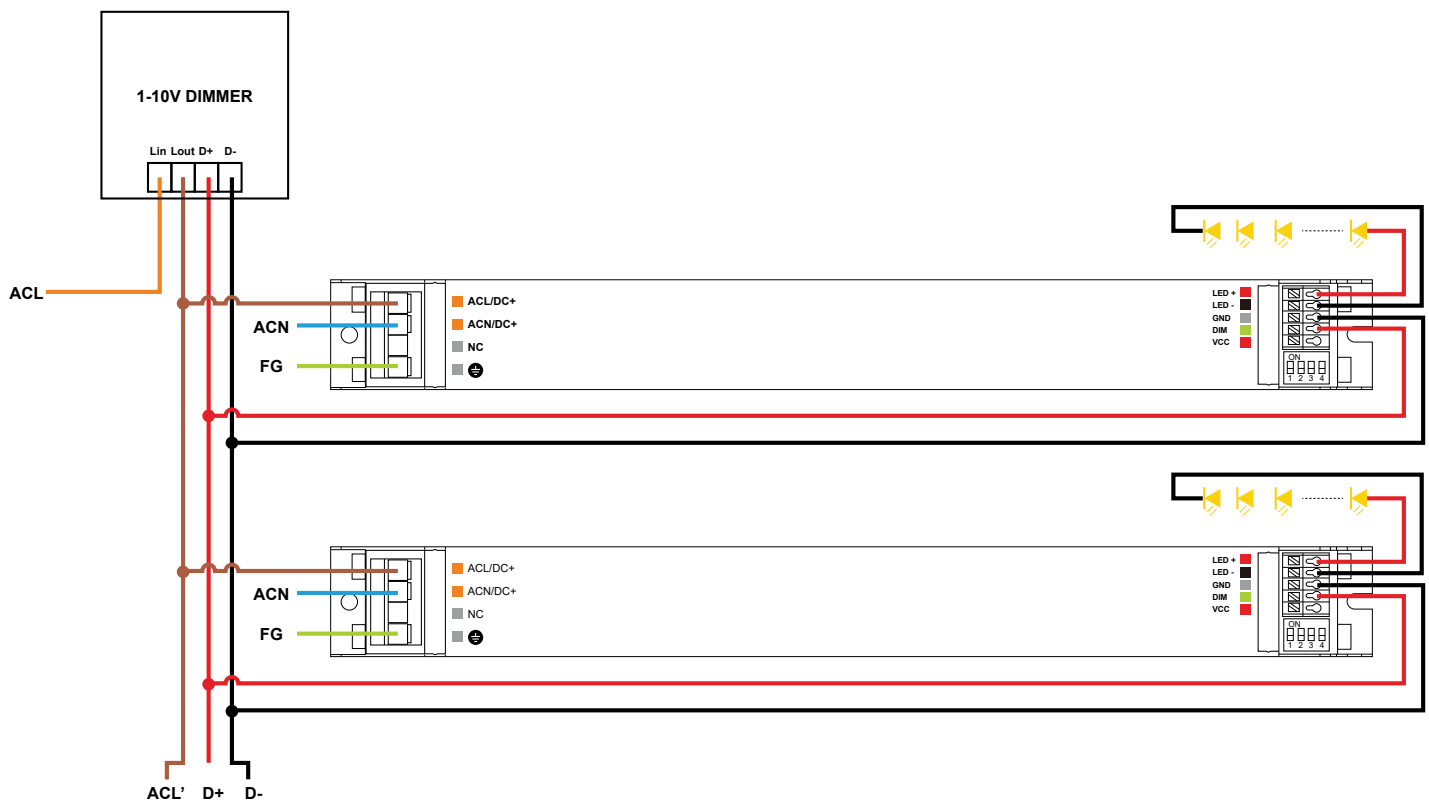


Switch 1=OFF  
Switch 2 =OFF  
Switch 3=OFF  
Switch 4 =OFF

OUTPUT CURRENT	MAX POWER
600 mA	25W
650 mA	27W
700 mA	29W
750 mA	32W
800 mA	34W
850 mA	36W
900 mA	38W
950 mA	40W
1000 mA	40W
1050 mA	40W

## DIMMING CONNECTIONS (APPLICABLE ONLY TO SENSOR MODELS)

### 1 - 10V/10V PWM dimming application



#### NOTES:

- 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 , GND is negative , please do not reverse .
- Dimming interface does not support voltage higher than 15V , otherwise it will damage internal components .
- When the dimming interface is open , the driver outputs the maximum current . When the interface is short - circuited , the current output is closed .
- 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 .
- Supports passive dimmer or isolated active dimmer . Dimming does not support non - isolated active dimmer dimming .
- It is recommended that the dimming wires should not be lower than 22AWG wire
- Do not connect the dimming wires alongside high voltage or interference sources . If it is unavoidable , please use shielded wires .

# **FREE** **ONSITE WARRANTY**

EXCLUSIVE TO  
MEMBERS ONLY



**FREE ONSITE WARRANTY FOR 3 YEARS**  
**INCLUDES PARTS & LABOUR**

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*In conjunction with your standard product warranty*