

SSA2

ECO LED SOLAR STREET LIGHT



AREAS OF APPLICATION

- Off-Grid Areas
- Urban & Residential Streets & Roads
- Car Parks
- Squares & Pedestrian Areas
- Bike & Pedestrian Paths
- Security Lighting

3 YEAR
WARRANTY

PRODUCT BENEFITS

- All in One design, easy for installation
- Smart MPPT controller realizes intelligent control of lamps
- Monocrystalline silicon solar panels, greatly improving solar energy conversion efficiency
- Deep cycle lithium battery, charge and discharge over 2,000 times
- Equipped with infrared or motion sensors, effectively save energy
- Adjustable mounting brackets ensure optimal sunlight exposure angle
- Continuously work 5-7 autonomy days in intelligent mode

PRODUCT FEATURES

- Max power: up to 100W
- Optic Lens: Type II, Type III, Type V
- Type of protection: IP65
- Impact resistance: IK10
- Working Temperature: -20°C~+60°C



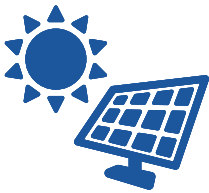
TECHNICAL DEFINITIONS

Lithium Battery



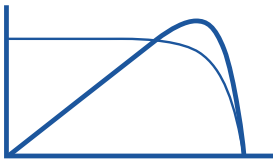
Lithium based battery packs have the added advantage that they have a higher power density than lead, which means they have more available power for the same mass of a lead battery. This advantage, combined with the longer life expectancy and higher rate of depth of discharge (DOD), offering an attractive option for solar lighting applications, resulting in a longer battery lifetime. Renowned branded cells used in lighting ensure the highest quality product. In addition, all Lithium ion battery packs have an integrated Battery Management System (BMS) which monitors the health, charging and discharging of the battery pack. This safeguards the cells so that they are not over charged or discharged, maximising their lifetime.

Solar module



The solar panels are ISO and TUV certified and carry a 25-year product lifetime. Hail-resistant and corrosion-proof. Rated outputs on the panels are 90% minimum for the first 10 years and 80% minimum after 25 years.

Charge controller

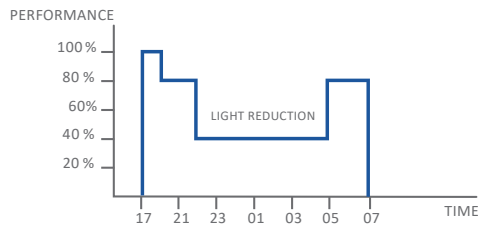


The MPPT charge controllers can harvest up to 30% more energy in clouded sky conditions compared to PWM charge controllers. The charge controllers have a load output connection that can be programmed to switch the luminaires off when the battery voltage drops to critical levels. This allows for the batteries to be protected from over discharge. The charge controllers have integrated temperature sensors that can compensate for thermal environmental changes when charging the batteries. The charge controllers use a 3-step charging process with all three charge levels programmable depending on the battery technology selected.

Optidim



Intelligent luminaire drivers are programmed if required in the factory with complex dimming profiles. Up to 5 combinations of time intervals and light levels are possible. This feature does not require any extra wiring. The period between switching on and switching off is used to activate the preset dimming profile.

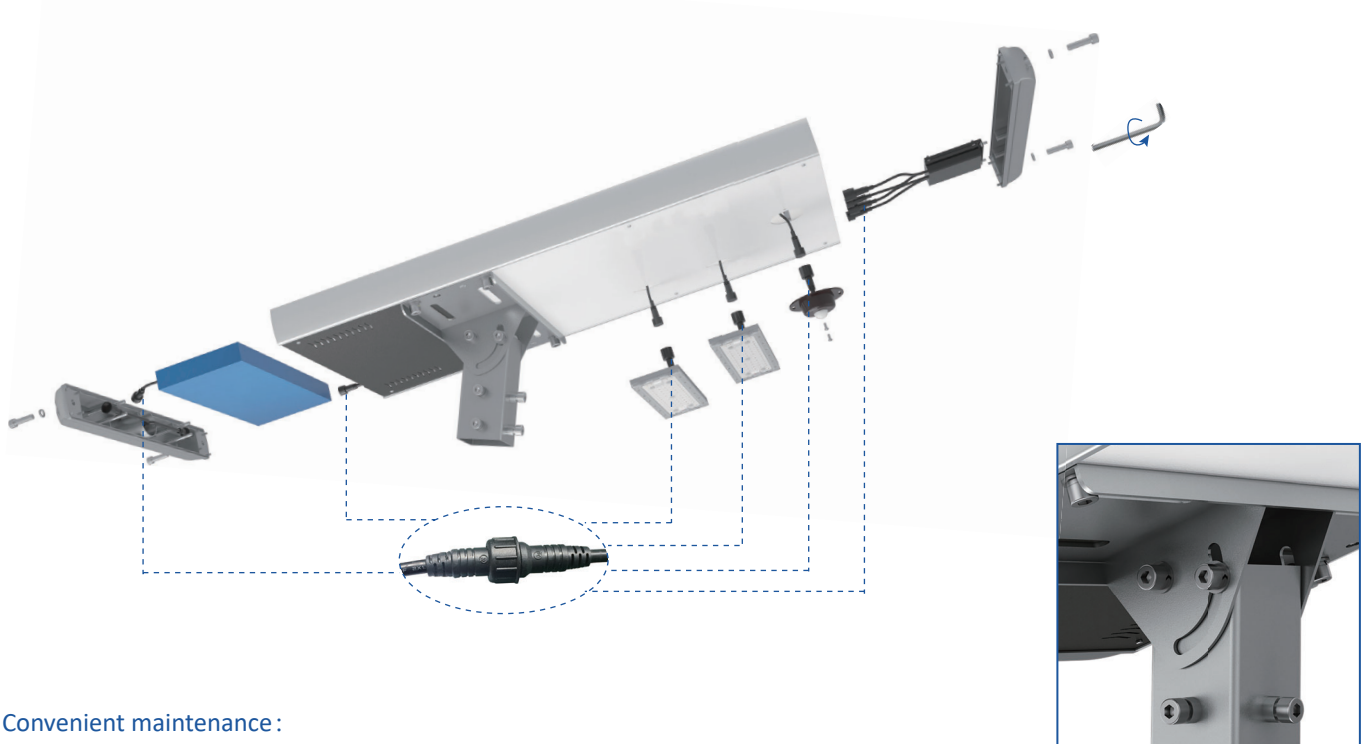


Autonomy Days



Autonomy Days refers to the number of nights/cycles a luminaire will continue to work without receiving a charge/ being charged from the solar panel, due to overcast weather conditions. The number of autonomy days is aligned to the battery depth of discharge resulting in sufficient capacity after a night/cycle.

KEY FEATURES



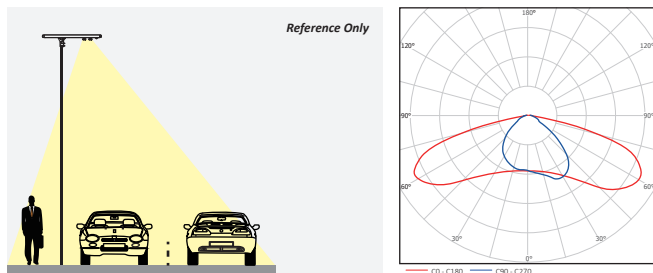
Convenient maintenance :

- + Drawer design makes the battery, led modules, sensor and controller easier to maintain.
- + Male /Female IP68 cable connector makes the luminaire waterproof and easy to replace.

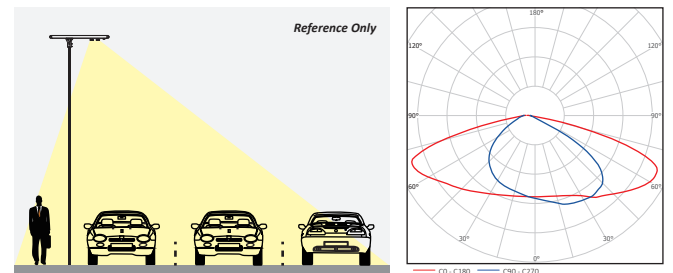
Angle of Mounting bracket: 0-90°

OPTICS

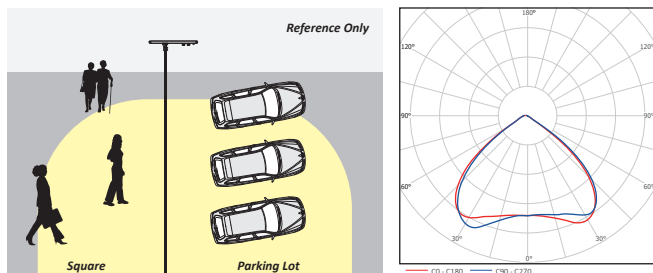
Type II



Type III



Type V



PRODUCT DATASHEET
Electrical & Photometric

50W Monocrystal

Model	Power	Modules Qty	Efficacy (+/- 5%)	Lumen (+/- 5%)	Battery Spec. (Lithium)	Constant worktime at 100% power	Constant worktime at 30% power (Energy save mode)	Charge Time	Installation Height	Pole Distance
MK-SSA501010	15W	1 (32 LEDs)	140 lm/ w	2100 lm	111WH	8.5 Hours	>29 Hours	2.5 Hours	3~4m	9~14m
MK-SSA501510	25W	1 (32 LEDs)	125 lm/ w	3120 lm	111WH	5.5 Hours	>19.5 Hours	2.5 Hours	3~5m	9~17m
MK-SSA502010	30W	1 (32 LEDs)	137 lm/ w	4100 lm	111WH	4 Hours	>14.5 Hours	2.5 Hours	4~5m	12~17m
MK-SSA502020	30W	1 (32 LEDs)	137 lm/ w	4100 lm	222WH	8.5 Hours	>29 Hours	4.5 Hours	4~5m	12~17m
MK-SSA503020	50W	2 (64 LEDs)	125 lm/ w	6240 lm	222WH	5.5 Hours	>19.5 Hours	4.5 Hours	4~6m	12~21m
MK-SSA504020	60W	2 (64 LEDs)	137 lm/ w	8200 lm	222WH	4 Hours	>14.5 Hours	4.5 Hours	5~6m	15~21m
MK-SSA504027	60W	2 (64 LEDs)	137 lm/ w	8200 lm	300WH	6 Hours	>20 Hours	6 Hours	5~6m	15~21m
MK-SSA505027	80W	2 (64 LEDs)	125 lm/ w	10000 lm	300WH	4.5 Hours	>16 Hours	6 Hours	5~7m	15~25m


70W Monocrystal

Model	Power	Modules Qty	Efficacy (+/- 5%)	Lumen (+/- 5%)	Battery Spec. (Lithium)	Constant worktime at 100% power	Constant worktime at 30% power (Energy save mode)	Charge Time	Installation Height	Pole Distance
MK-SSA702020	30W	2 (64 LEDs)	140 lm/ w	4200 lm	222WH	8.5 Hours	>29 Hours	3.5 Hours	4~5m	12~17m
MK-SSA703020	50W	2 (64 LEDs)	125 lm/ w	6240 lm	222WH	5.5 Hours	>19.5 Hours	3.5 Hours	4~6m	12~21m
MK-SSA703027	50W	2 (64 LEDs)	125 lm/ w	6240 lm	300WH	8 Hours	>26 Hours	4.5 Hours	4~6m	12~21m
MK-SSA704020	60W	2 (64 LEDs)	137 lm/ w	8200 lm	222WH	4 Hours	>14.5 Hours	3.5 Hours	5~6m	15~21m
MK-SSA704027	60W	2 (64 LEDs)	137 lm/ w	8200 lm	300WH	6 Hours	>20 Hours	4.5 Hours	5~6m	15~21m
MK-SSA704040	60W	2 (64 LEDs)	137 lm/ w	8200 lm	444WH	8.5 Hours	>29.5 Hours	6.5 Hours	5~6m	15~21m
MK-SSA705027	80W	3 (96 LEDs)	129 lm/ w	10300 lm	300WH	4.5 Hours	>16 Hours	4.5 Hours	5~7m	15~25m
MK-SSA705040	80W	3 (96 LEDs)	129 lm/ w	10300 lm	444WH	7 Hours	>23.5 Hours	6.5 Hours	5~7m	15~25m
MK-SSA706027	90W	3 (96 LEDs)	137 lm/ w	12300 lm	300WH	4 Hours	>13 Hours	4.5 Hours	6~8m	18~35m
MK-SSA706040	90W	3 (96 LEDs)	137 lm/ w	12300 lm	444WH	5.5 Hours	>19.5 Hours	6.5 Hours	6~8m	18~35m

PRODUCT DATASHEET

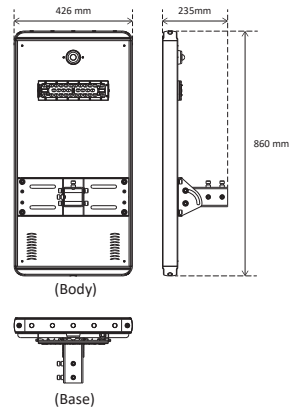
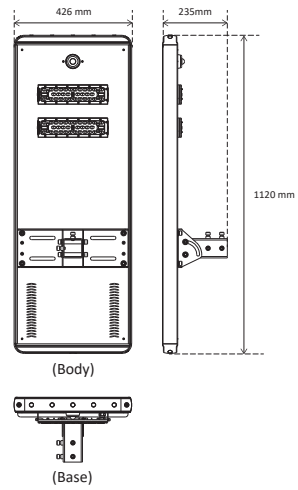
100W Monocrystal

Model	Power	Modules Qty	Efficacy (+/- 5%)	Lumen (+/- 5%)	Battery Spec. (Lithium)	Constant worktime at 100% power	Constant worktime at 30% power (Energy save mode)	Charge Time	Installation Height	Pole Distance
MK-SSA1003020	50W	3 (96 LEDs)	126 lm/ w	6300 lm	222WH	5.5 Hours	>19.5 Hours	2.5 Hours	4~6m	12~21m
MK-SSA1003027	50W	3 (96 LEDs)	126 lm/ w	6300 lm	300WH	8 Hours	>26.5 Hours	3 Hours	4~6m	12~21m
MK-SSA1004020	60W	3 (96 LEDs)	139 lm/ w	8360 lm	222WH	4 Hours	>14.5 Hours	2.5 Hours	5~6m	15~21m
MK-SSA1004027	60W	3 (96 LEDs)	139 lm/ w	8360 lm	300WH	6 Hours	>20 Hours	3 Hours	5~6m	15~21m
MK-SSA1004040	60W	3 (96 LEDs)	139 lm/ w	8360 lm	444WH	8.5 Hours	>29.5 Hours	4.5 Hours	5~6m	15~21m
MK-SSA1005027	80W	3 (96 LEDs)	129 lm/ w	10300 lm	300WH	4.8 Hours	>16 Hours	3 Hours	5~7m	15~25m
ZGSM-PV1005040	80W	3 (96 LEDs)	129 lm/ w	10300 lm	444WH	7 Hours	>23.5 Hours	4.5 Hours	5~7m	15~25m
MK-SSA1005045	80W	3 (96 LEDs)	129 lm/ w	10300 lm	500WH	8 Hours	>26.5 Hours	5 Hours	5~7m	15~25m
MK-SSA1006027	100W	3 (96 LEDs)	123 lm/ w	12300 lm	300WH	4 Hours	>13 Hours	3 Hours	6~8m	18~35m
MK-SSA1006040	100W	3 (96 LEDs)	123 lm/ w	12300 lm	444WH	5.5 Hours	>19.5 Hours	4.5 Hours	6~8m	18~35m
MK-SSA1006045	100W	3 (96 LEDs)	123 lm/ w	12300 lm	500WH	6.5 Hours	>22 Hours	5 Hours	6~8m	18~35m

Dimension & Weight

Solar Panel	Model	Body /Base Carton Size (mm)	N.W (kg)	Body /Base G.W (kg)
Monocrystal 50W	MK-SSA501010 /MK-SSA501510 /MK-SSA502010	915 x485 x140 /410 x160 x205	14.8	11.9/ 5.2
	MK-SSA502020		15.9	13.0/ 5.2
	MK-SSA503020 /MK-SSA504020		16.3	13.4/ 5.2
	MK-SSA504027 /MK-SSA505027		17.5	14.6/ 5.2
Monocrystal 70W	MK-SSA702020 /MK-SSA703020 /MK-SSA704020	1175 x485 x140 /410 x160 x205	17.8	15.3/ 5.2
	MK-SSA703027 /MK-SSA704027		19.0	16.4/ 5.2
	MK-SSA704040		20.0	17.4/ 5.2
	MK-SSA705027 /MK-SSA706027		19.4	16.8/ 5.2
	MK-SSA705040 /MK-SSA706040		20.4	17.8/ 5.2
Monocrystal 100W	MK-SSA1003020 /MK-SSA1004020 /MK-SSA1003027 /MK-SSA1004027 /MK-SSA1005027 /MK-SSA1006027	1665 x485 x140 /410 x160 x205	23.8	22.1/ 5.2
	MK-SSA1004040 /MK-SSA1005040 /MK-SSA1006040		24.8	23.1/ 5.2
	MK-SSA1005045 /MK-SSA1006045		26.0	24.3/ 5.2

Note: Above data of weight are all typical values.

DIMENSION
50W Monocrystal

70W Monocrystal

100W Monocrystal
