

FLAT SERIES Solar Streetlight



SSMD The solar light is a solar-powered LED lighting solution that can be used at any location where there is no mains power supply. Thanks to its timeless prizewinning design, the Flat series is excellent for lighting modern urban space as well as protected monumental structures. The ingenious operating system guarantees flawless function for several nights even during the worst weather. **SSMD** La luce solare è una soluzione di illuminazione a LED a energia solare che può essere utilizzato in qualsiasi luogo privo di alimentazione di rete. Grazie per il suo design senza tempo, pluripremiato, la serie Flat è eccellente per l'illuminazione spazio urbano moderno e strutture monumentali protette. L'ingegnoso il sistema operativo garantisce un funzionamento impeccabile per diverse notti anche durante il peggior tempo.

TECHNICAL DATA

Туре	Solar Streetlight			
Installation	Pole Top	F		A**
Housing	Die-cast aluminium	+85°C	<u> </u>	A SPANA
Processing	Powder Coated	-20°C	50000h	JEAR5
Diffuser	Safety Glass	CE	RoHS	
Glow wire test	850°			
Safety Class	II	220-240∨ 50-60Hz	IK08	ISO 9001
Direct Mounting on Normal Flammable Surface	Yes	IP66		Ϋ́
Driver Included	Yes			LED
Adjustable	Yes			



ORDE		Code No.	System Power	Lumen Output	Luminaire Efficacy	CRI
$\underline{LL} = \underline{SSMD} = \underline{W} = \underline{CCT} = \underline{IP} = \underline{WH}$			(vv)	(im)	(IM/VV)	
		SSMD-12W	12	1860	155	>90
	IP Rating	SSMD-15W	15	2325	155	>90
	Color Temperature	SSMD-20W	20	3100	155	>90
	Luminaire Power	SSMD-30W	30	4650	155	>90
Luminaire Family Name		SSMD-40W	40	6200	155	>90
Manufacturer		SSMD-50W	50	7750	155	>90
COLOR TEMPERATURE OPTION		SSMD-60W	60	9300	155	>90
		SSMD-80W	80	12400	155	>90
		SSMD-100W	100	15500	155	>90
2000k Warm White	3200k 3500k 4500K 5500k 6500k Cool White Daylight	SSMD-120W	120	18600	155	>90

BEAM ANGLE OPTION



CONTROL OPTION

	DALI DIM	¢
🗆 D1	0-10V DIM	
🗆 PD	Phase Cut DIM	

DALI DIMMARE 1-10V CUT PHASE

LED CHIPS

OSRAM	SEOUL	ØNICHIA
CREE ≑	Panasonic	
TRIDONIC	\bigcirc	CITIZEN ELECTRONICS CO., LTD.
	bridgelux.	O LUMILEDS



LED DRIVERS



PHOTOMETRIC



3D MODULE







SOLAR PANEL:

- Quality solar cells with high solar energy conversion up to 24%
- Mono-crystalline silicon solar cells.
- Transparent low-iron tempered glass and anodized aluminum frame to ensure modules working in extreme outdoor environment
- span up to 25 years (90% power output for 10 years, and 80% power output for 25 years)



Item No:	Mono-120W
Solar Cell:	156 Mono
Maximum Power(W):	120
Optimum Power Voltage (Vmp)	18
Optimum Operating Current (Imp)	6.66
Open Circuit Voltage (Voc)	21.24
Short Circuit Current (Isc)	7.32
Size of Module(mm)	1070*398*4.5mm
Front Glass Thickness(mm)	3.2mm
Temperature Coefficients of Isc (%)°C	0.065+/-0.015%/°C
Temperature Coefficients of Voc (%)°C	_(22.3+/0.1) mv°C
Temperature Coefficients of Pm (%)°C	_(0.5+/-0.05)/°C
Temperature Coefficients of Im (%)°C	+0.1/°C
Temperature Coefficients of Vm (%)°C	-0.38/°C
Temperature Range	-40°C to +85°C
Tolerance Wattage(e.g.+/-5%)	±3%
Surface Maximum Load Capacity	6 0m/ s (5 k g / s q .m)
Allowable Hail Load	23m/s ,7.53g
Weight Per Piece(KG)	4.5
Junction Box Type	Pass the CE,IEC 61215
Cell Efficiency (%)	22%
FF (%)	70-72%



BATTERY DETAILS:

- LiFePO4 battery 12.8V 48AH
- In-ground solution and on-pole solution are available.
- Completely maintenance-free
- Long service life 5-8 Years
- Environmental & Non-pollution
- Safety & Reliability



Model:	IFR26650-35A(EV)
Nominal capacity	3500mAh @1C
Nominal voltage	3.20V
Max Charging voltage	3.65 ±0.05 V
Discharge ending voltage	2.00 ±0.05 V
Energy density	129 Wh / Kg
Standard charge current	0.5C
Max charge current	1C
Standard discharge current	1C
Max discharge current:	5C
Max recommended charge and discharge cell surface temperature:	Charge: 0 ~ 55°C Discharge: -20 ~ 65°C
Storage environment:	1year : -20~25℃ 85%RH Max 3months : -20~45℃ 90%RH Max 1month : -20~60℃ 90%RH Max
Internal resistance:	≤18mΩ (AC Impedance, 1000 Hz)
Cell dimension:	Height:65.5mm, Diameter: 26.9mm
Voltage:	3.32V ~ 3.34V
Weight:	About 88g

Cautions:

- If the cell leaks and the electrolyte get into your eyes, don't wipe eyes, instead, thoroughly rinse the eyes with clean running water for at least 15 minutes, and immediately seek medical attention. Otherwise, eyes injury can result.
- If the cell gives off an odor, generates heat, becomes discolored or deformed, or in any way appear abnormal during usage, recharging or storage, immediately remove it from the device or cell charger and stop using it.
- In case the cell terminals get dirty, clean the terminals with a dry cloth before use.
- If the cell beyond the useful-life, please fully discharged, sticks the cell with insulating tape, then put the cell to the specialized recycle bin.



CONTROLLER & SENSOR:

- Three types advanced controller provide three optimal solar solutions with different function and cost.
- Features
- IP67 Water proof protection
- PWM charging mode with high charging efficiency
- Protection for over charge, over discharge, over load and anti-reverse connection



Model No:	9108A3 (boost induction)	
suitable for batteries	Lithium battery 12V/24V. / Colloid battery 12V/24V.	
LED lamp holder:	voltage ≤ 36V.	
Solar panel charging current	≤ 8A.	
driving current:	20MA-2000MA.	
output current accuracy error:	< 3%.	
maximum conversion efficiency:	96%.	
Battery overcharge protection voltage:	can be set.	
Battery overcharge return voltage:	can be set.	
Battery under voltage protection voltage:	can be set.	
exit under voltage protection voltage:	can be set.	
Optically controlled voltage:	can be set.	
Protection function:	protection against overvoltage, overheating, overpower, open circuit, short circuit, reverse connection, etc.	
Shell material of the controller:	industrial cast aluminum.	
Protection level:	IP67.	
temperature control:	can be set (upper and lower temperature limits for charging and discharging of lithium batteries).	
Power saving intelligent management:	can be set (automatic power reduction according to battery capacity).	
Human body sensing:	infrared / microwave sensing, induction delay can be set according to actual requirements.	



STATUS INDICATION			
Indicator light	Status	Indicator light description	
Blue light (battery)	Bright	The battery charge is normal.	
	Out	No output voltage of battery	
	Flash	Battery under voltage	
Red light (photovoltaic)	Bright	The battery is in a state of charging saturation.	
	Out	The output voltage of the solar panel is lower than the light voltage (dark night)	
	Flash	solar panels are charging the battery	
	Slow flash	During the charging process, the protection is started because the temperature is too high or too low.	
Green light (load)	Bright	The light is on, and the load has output.	
	Out	The light is turned off, and the load has no output.	
	Flash	Load output open circuit protection, short circuit protection, over current protection, over power protection	
	Slow flash	In the process of slow flash discharge, the protection is started because the temperature is too high or too low.	
Yellow light (induction).	Bright	Sense that someone is walking or an object is moving (the controller with induction has this light)	
Red, green and blue lights take turns flashing:		Battery protection board protection, the system is opening and restarting the battery protection board (the indicator light is the power supplied by the solar panel at this time).	