



SoLar LEDStrEEt LigHt & Mini MaSt SoLution



HIGHEST
SP1A SOLAR
GRADING

Performance Monitoring with Bluetooth



www.vrindaautomation.co.in

Solar Street Light System

A LED based solar street lighting system consists of a Solar PV Module, Solar charge controller, battery, and LED based luminaries, all suitably mounted on a pole. The battery is charged by electricity generated through the PV module during day time and the luminaries provides light from dusk to dawn.

Havells Mini Mast Solutions

A Solar Mini Mast System consist of Solar PV Modules, Solar Gel Battery, MPPT Solar charge controller, DC Street light/ DC flood light & octagonal pole. LED street lights/ LED flood lights are used to minimize the power / grid consumption and charging by solar PV modules.

Why Havells Enviro Solar Street Light & Mini Mast Solutions

LED Luminaire

Havells Enviro LED Luminaires deliver lumen efficacy of more than 105 lumen per watt. The luminaires have a life of greater than 50,000 hours and have IP 66 rating which gives protection even in harsh outdoor environment.

About MPPT

Havells LED street lighting/ Mini Mast systems are designed with MPPT (Maximum Power Point Tracking) which provides about 25% more charging efficiency by utilizing maximum energy harvested by solar PV modules.

About Solar PV module

Highly efficient poly crystalline solar modules are used which are tested for longer durability & manufactured with innovative technologies. These modules are designed to withstand highly corrosive atmosphere and heavy wind loads. The modules are certified for industry standards IEC61215, IEC61730 (safety class 1 & 11).



Havells Solar Street Light



Havells Solar Mini Mast

Benefits of Solar LED Street Lights/Mini Mast

1. Renewable and Independent green energy source.
2. Automated switch ON and OFF.
3. Easy to install. Instant installation and ready to use.
4. No external cabling or trenching required.
5. Ideal solution for rural and remote areas where power supply is unreliable.
6. Operational costs are minimum.
7. Low maintenance cost.
8. Designed for long life.

applications

- Roadway lighting
- Smart Cities
- Green building projects
- Municipal Corporations / Municipalities
- Tourist Places
- Campus lighting
- Railway platforms
- Schools/Colleges/ Education institutes
- CSR illumination projects
- Village illumination / Gram panchayat Illumination
- MLA / M.P LAD Projects

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Luminaire Wattage	System Voltage	Lumen (lm)	MPPT / PWM	3 Days Backup		2 Days Backup		GI Tubular Pole Above ground	Bluetooth Connectivity	Hybrid with Octogonal Pole
				Solar Panel (Wp)	Battery (LMLA) (Ah)	Solar Panel Wp	Battery (LMLA) Ah			
7 W	12 V	735	PWM	40	40	NA	NA	4 M TUB Pole	Optional	Optional
12	12	1200	PWM	60	40	NA	NA	5 M TUB Pole	Optional	Optional
15	12	1500	PWM	75	60	75	40	5 M TUB Pole	Optional	Optional
20	12	2100	PWM	100	75	100	60	5 M TUB Pole	Optional	Optional
24	12	2400	PWM	120	80	120	60	5 M TUB Pole	Optional	Optional
21	12	2205	MPPT	80	75	80	60	5 M TUB Pole	Optional	Optional
24	12	2400	MPPT	100	80	100	60	5 M TUB Pole	Optional	Optional
30	12	3150	MPPT	120	100	120	75	6 M TUB Pole (B)	Optional	Optional
36	12	3780	MPPT	150	120	150	80	6 M TUB Pole (B)	Optional	Optional
39	12	4095	MPPT	160	150	160	100	6 M TUB Pole (B)	Optional	Optional
45	24	4725	MPPT	200	160	200	120	6 M TUB Pole (B)	Optional	Optional
60	24	6300	MPPT	240	200	240	150	7 M Oct	Optional	Optional
70	24	7350	MPPT	300	240	300	160	7 M Oct	Optional	Optional

*PWM - Pulse Width Modulation *MPPT - Maximum Power Point Tracking *(B) - Pole with base plate *LMLA - Low Maintenance Lead Acid Tubular

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Luminaire Wattage	System Voltage	Lumen (lm)	MPPT / PWM	3 Days Backup		2 Days Backup		GI Tubular Pole Above ground	Bluetooth Connectivity	Hybrid with Octogonal Pole
				Solar Panel (Wp)	Battery (LMLA) (Ah)	Solar Panel Wp	Battery (LMLA) (Ah)			
7	12	735	PWM	40	35	NA	NA	4 M TUB Pole	Optional	Optional
12	12	1200	PWM	60	50	NA	NA	5 M TUB Pole	Optional	Optional
15	12	1500	PWM	75	65	75	40	5 M TUB Pole	Optional	Optional
20	12	2100	PWM	100	75	100	65	5 M TUB Pole	Optional	Optional
24	12	2400	PWM	120	85	120	65	5 M TUB Pole	Optional	Optional
21	12	2205	MPPT	80	75	80	65	5 M TUB Pole	Optional	Optional
24	12	2400	MPPT	100	85	100	65	5 M TUB Pole	Optional	Optional
30	12	3150	MPPT	120	100	120	75	6 M TUB Pole (B)	Optional	Optional
36	12	3780	MPPT	150	125	150	85	6 M TUB Pole (B)	Optional	Optional
39	12	4095	MPPT	160	150	160	100	6 M TUB Pole (B)	Optional	Optional
45	24	4725	MPPT	200	170	200	130	6 M TUB Pole (B)	Optional	Optional
60	24	6300	MPPT	240	200	240	150	7 M Oct	Optional	Optional
70	24	7350	MPPT	300	250	300	170	7 M Oct	Optional	Optional

*PWM - Pulse Width Modulation *MPPT - Maximum Power Point Tracking *(B) - Pole with base plate *GEL - VRLA Solar Gel

EnViro SoLar Mini MaSt SyStEMS

Luminaire Type	Luminaire Wattage (W)	System Voltage (V)	Solar Panel (Wp)	Battery (Ah)	Octagonal Pole
Street Light	30 W x 4	12	500 Wp	400 Ah	9 M
Flood Light	33 W x 3	24	400 Wp	300 Ah	9 M
Flood Light	33 W x 4	24	500 Wp	400 Ah	9 M
Flood Light	45 W x 3	24	500 Wp	400 Ah	9 M

Havells Hybrid Charging Device



This device is recommended for areas where 365 days of lighting is required and grid supply is available. The device smartly senses solar street light parameters and automatically switches to grid supply when battery is unable to provide backup. The device has inbuilt solar priority and minimizes grid consumption.

Havells Enviro Smart Solar Street Light / Mini Mast

A smart offering from Havells that gives you the power to control the working of solar street lights. The street lights are embedded with a Bluetooth modem which enables you to connect to the street light through your smart phone. The feature allows you to track the performance parameters such as wattage, voltage, current, dimming condition, etc. and also allows certain parameters to be modified. Now you can rest assured that your street light is delivering performance as promised.

The main benefits of Havells Enviro Smart series are:

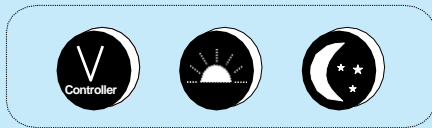
- User can easily validate system performance
- Easy diagnosis of system health, no need to climb the pole
- Warning message for system maintenance
- Program the system for higher or lower wattage depending on need
- User can program the dimming parameters to suit requirement



Havells Enviro Smart Solar Street Light / Mini Mast / High Mast



High quality poly crystalline silicon solar panels with high efficiency & long life.



Highly efficient MPPT controller and light management algorithms to ensure maximum uptime.



Bluetooth controlled System Health Scanner & Programmable dimming control



Inbuilt Bluetooth Controller for connectivity and App Monitoring via Android / iOS.



High Lumen LED with lifetime > 50,000 hours. Pressure Die cast Aluminium IP66 enclosure provides excellent Protection against water entry, dust and humidity.



Deep discharge tubular batteries store energy and provide back-up for cloudy days. The batteries are designed for tropical conditions and have a long life.



Scan the QR Code to download Havells mCatalogue

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