



SOLAR STREET LAMPS



The **RMS Polska** company is engaged in technical consultancy, designing, production and assembly of complete lighting solutions. We have necessary knowledge and know-how to design lighting systems bespoke for individual applications.

Solar Street Lamps are ideal solution for outdoor lighting applications. The Jupiter lamps are self-contained and they do not need connection to the electrical grid.

The market is full of "universal" and cheap street lamps but they are not designed for specific climate conditions. After the installation, sometimes it turns out that these lamps do not work as expected. Jupiter Solar Street Lamps are always matched to the specific working conditions. Our individual approach to any application ensures that our solar street lamps operate successfully and trouble-free.

During many years of activity in this market we have gained invaluable experience in the design of a variety of energy-efficient and renewable energy solutions.

If you are looking for a professional and responsible company we invite you to use our services.

PRINCIPLE OF OPERATION

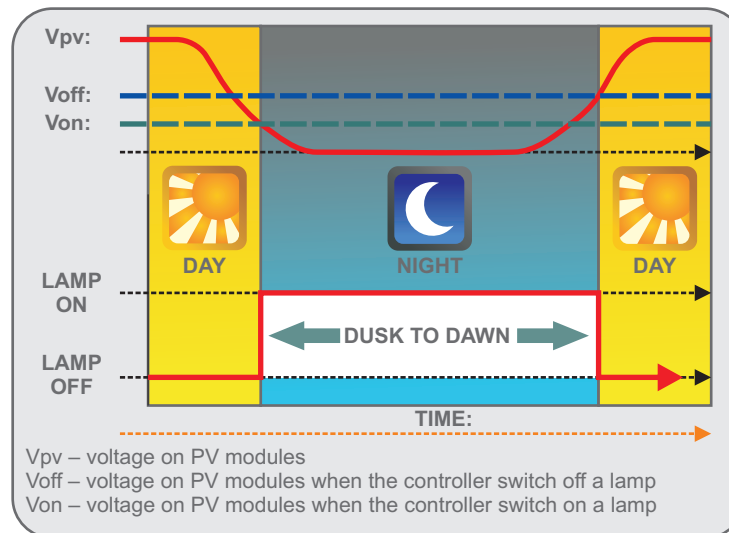
Electricity generated by PV modules charges batteries through a specialist MPPT charge controller. The PV modules also act as the dusk to dawn sensors. Energy generated during the day is used for power supply of lamp operation at night. When designing the unit we consider local weather, altitude, weight of system, type of the ground, wind zone, etc. The bespoke nature of our designs and installations ensure the selected light will be safe for the environment and provide many years of trouble-free operation.

JUPITER LAMPS BENEFITS

- ♦ Energy efficiency
- ♦ Long life time
- ♦ Independence from the electricity grid
- ♦ Very low cost of operation
- ♦ High performance
- ♦ High quality components
- ♦ Reduction of CO₂ emissions
- ♦ Use of renewable energy
- ♦ No energy costs throughout life of product
- ♦ A higher level of illumination as compared to the conventional lamp
- ♦ High resistance to weather conditions and vibration
- ♦ Individual design for each application and adjustable lighting
- ♦ Protection against overcharging and deep discharge of batteries
- ♦ Easier installation comparing to the competitors
- ♦ **Designed and manufactured in Poland.**

OUR DIFFERENCE

- ♦ RMS POLSKA Company operate in renewable energy sector since 2004.
- ♦ Our mission is to propagate ecological energy sources and their practical application.
- ♦ Extensive experience in the renewable energy sector.
- ♦ We are an European manufacturer of solar and hybrid street lamps.
- ♦ Professional design, technical consulting, manufacture, quality control and service.
- ♦ Thanks continuous research our company increase quality, reliability and range of offered systems.
- ♦ Using of high-quality components such as: MPPT regulators, long-life LEDs, high-efficiency PV modules, long-life gel batteries.
- ♦ Technical support.
- ♦ Flexibility.
- ♦ Hundreds of lamps installed in adverse environment and harsh climates.
- ♦ Customized solution for every application.
- ♦ Quality management system: ISO 9001.



We reserve the right to make changes without prior notice.



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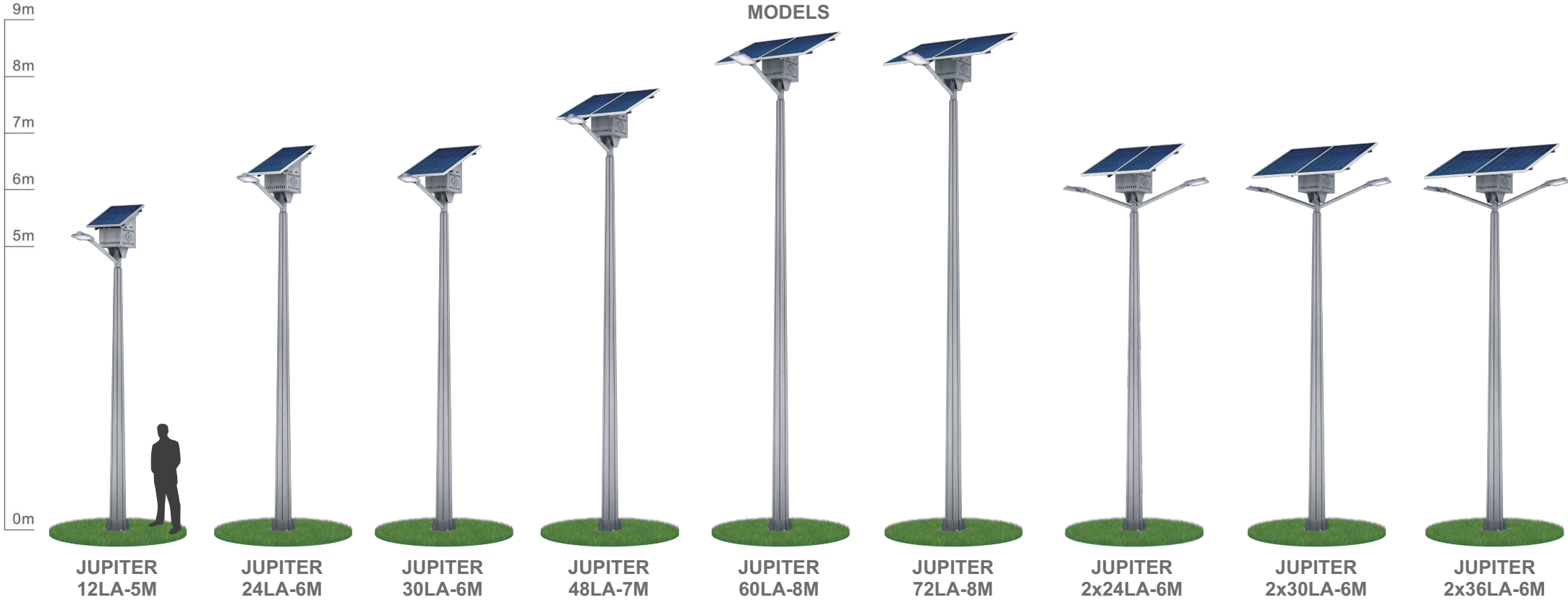
TYPICAL APPLICATIONS

- ♦ lighting of roads and streets
- ♦ pathways
- ♦ pedestrian areas
- ♦ promenades

- ♦ junctions and crossings
- ♦ pedestrian crossings
- ♦ squares
- ♦ parks

- ♦ bus stops
- ♦ sports fields
- ♦ gardens and other green spaces
- ♦ cemeteries

- ♦ private estates
- ♦ factories
- ♦ industrial zones
- ♦ surveillance areas



STANDARDS

Pole, arm, structure	PN-EN 1991-1-4:2008, PN-EN 1993-1-1:2006, PN-EN 40-5, EN ISO 1090, EN ISO 1461, EN ISO 3834-2:20106
Fixture	EMC Directive, EN55015, EN61000-3-2, EN61000-3-3, EN61347-2-13, EN62384, EN62031, EN60838-2-2, EN60598-1, EN60598-2-3
Photovoltaic modules	Directive 73/23/ modified from dir. 93/68/CEE-2006/95/CE low voltage equipment, Directive 220/23 European Official Gazette th dated July 22 1993 CE Mark, EN 61730 - CEI/IEC 61215 - 61646 - Safety Class II
Regulator	EMC Directive, EN50081-1, EN55014, EN55015, EN50082-1, EN61000-4-2
Batteries	EMC Directive and Safety Directive, EN60335-1 : 2002, EN55014-1 : 2007, EN55014-2 : 2008, EN61000-3-3 : 2008

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TECHNICAL SPECIFICATION

MODEL	Jupiter 12LA-5M	Jupiter 24LA-6M	Jupiter 30LA-6M	Jupiter 48LA-7M	Jupiter 60LA-8M	Jupiter 72LA-8M	Jupiter 2x24LA-6M	Jupiter 2x30LA-6M	Jupiter 2x36LA-6M
SOLAR ENGINE									
PV dimensions	1005 x 605 x 35	1490 x 675 x 42	1580 x 880 x 42	1490 x 1350 x 42	1580 x 1760 x 42	1490 x 1970 x 42	1490 x 1350 x 42	1580 x 1760 x 42	1490 x 1970 x 42
Total PV power	100 Wp	150 Wp	180 Wp	300 Wp	360 Wp	440 Wp	300 Wp	360 Wp	440 Wp
Weight (incl. batteries, fixture, arm)	115kg	124kg	135kg	174kg	200kg	208kg	187kg	211kg	219kg
Tilt	25°								
FIXTURE									
Type	Power LED diodes - CREE								
LED source efficacy	142 lm/W @ If=350mA, Tj=25°C (77°F)								
Illuminance*	16 lx	22 lx	26 lx	27 lx	29 lx	34 lx	22 lx at one fixture	26 lx at one fixture	30 lx at one fixture
Average illuminance* (at area 30m x 6m)	4,53 lx	7,75 lx	8,92 lux	11 lx	13 lx	16 lx	7,75 lx at one fixture	8,92 lx at one fixture	11 lx at one fixture
Optic	Asymmetric for street lighting								
Light source life-time	minimum 60 000 working hours								
Photometry	The photometric datas have been measured in laboratory in compliance with the UNI11356 and LM79-08 rules.								
Other information	Protection degree (fixture): IP65. Possibility of automatic power control LED fixtures depending on battery level. The lamp holder is adjustable: inclination angle and swivel arm lock.								
BATTERIES									
Type:	Gel type , mounted on the top of pole, maintenance free.			Gel type , mounted on the top of pole, maintenance free, with Microprocessor Controlled Battery Equalizer.					
Rating:	approx. 2150 cycles to 20% depth of discharge at 20°C (68°F)								
ENERGY MANAGEMENT									
Regulator	PWM	High efficiency regulator MPPT with external temperature sensor for temperature compensation.							
Lighting profiles	Dusk-to-down (valid for: Africa, South Europe, South and Central Asia, Central America), auto mode, manual mode, dimming.								
Day/night detection	Automatic dusk detection via photovoltaic panels.								
MOUNTING									
Solar engine	Outer diameter round pipe: 114,3 mm; inner diameter round pipe (socket): 106,8 mm; length of round pipe: 350 mm. Mounted on the top of pole Ø101,7 mm.								
Wind Load Rating	Standard: 160 km/h (100 mph)								
Height of light source	5,2m	6,2m	6,2m	7,2m	8,2m	8,2m	6,2m	6,2m	6,2m
Height of pole	5m	6m	6m	7m	8m	8m	6m	6m	6m
Fixture	Mounting bracket Ø60mm.								
Foundation	Depending on the local site conditions, ground type, weight, dimensions, wind zone. Please contact with RMS Polska or local distributor.								
Materials	Hot-dip galvanised pole, batteries box and components protected against corrosion.								
Options	Bluetooth communication module for remote programming and service, with an application on your laptop. Remote monitoring of GPRS.								
Details	Professional design, high quality, easy mounting, off grid lighting, modern design and attractive appearance, perfect fit to your needs.								

*- Parameters are dependent of the angle adjustment and height of light source installation (depending on the wind zone and local site conditions).

NOTE!

It is possible to adapt the system to specific application and make changes in the parameters of the solar lamp.

The data in the table shows a sample configuration of the lamp. Each system is individually designed with specific lighting, photovoltaic panels, battery capacity, operating capacity, period of autonomy, size, control system, etc.

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