

FROM NOW
ON, LET THE
SUN WORK
FOR YOU

T1
INVERTER
FRONIUS
17,5 KW
3M 1000v

T2
INVERTER
FRONIUS
17,5 KW
3M 1000v

NAVALIS
ENGINEERING & PRODUCTION

Exclusive ENERGY PANEL agents for Croatia

Complete solutions for solar energy use
DESIGN - INSTALLATION - COMMISSIONING



Thermodynamic systems for water and space heating

As a respectable company, we have recently been selected as exclusive agents for the company Energy Panel for Croatia. Energy Panel is a Spanish manufacturer of water and space heating equipment that develops and offers highly sophisticated devices with the advantage of using materials that require no maintenance which ultimately reduces the price of investment. Different systems are suitable for heating large industrial plants, agricultural plants, pools and hotels, but also for domestic use. The devices are manufactured according to high quality standards, and a team of experts has been engaged in the development of innovative solutions adapted to the needs of the market and end user.

THERBOIL TB 200 E+I/ Wide range of capacities: 75 - 500 liters

Works continuously 24 hours a day, 365 days a year, in anyweather.



We offer different types of solutions and equipment, depending on the needs and available infrastructure, namely:

▶ PHOTOVOLTAIC POWER PLANTS

So-called **island systems** are independent of the electricity grid and as such are very suitable for full functionality of appliances in areas where there is no infrastructure for the use of electrical energy, nor is it planned (remote vacation homes, remote agricultural properties and other commercial facilities).

12 V – from HRK 5,300 + VAT

Sufficient for refrigerator, TV and radio, lighting, water pump (marine and others)

24 V – from HRK 9,200 + VAT

Same as 12 V + devices that require more power (drill, concrete mixer, grinder for metalcutting, etc.)

220 V– 3 KW– from HRK 22,500 + VAT

For more powerful appliances in the household, traffic signal devices, facilities of various purposes (shops, cafe bars, workshops, etc.), and all dislocated devices (video surveillance, alarms) and locations (feeders for fish farms and hunting grounds).



▶ INVERTERS, POWER CABINETS AND PROTECTION

Solar power plant 10 kW

20 photovoltaic cells connected in two series and two output strings with 630 V DC total voltage toward the inverter.

Inverter 11 kW / platinum R3

Total inverter power is 11 kW. Input voltage from the grid is 3 x 400 V three-phase - synchronized with the grid. Input voltage from the power plant is separated by fuses and cathodic protection.

Power cabinets and protection

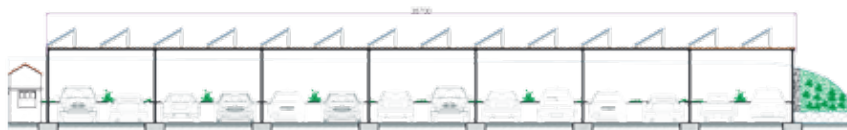
CABINET N1 - has the role of connecting cables form the roof and cathodic protection

CABINET N2 - distribution of alternating part of the plant, connected via the fuse and protective FID switch

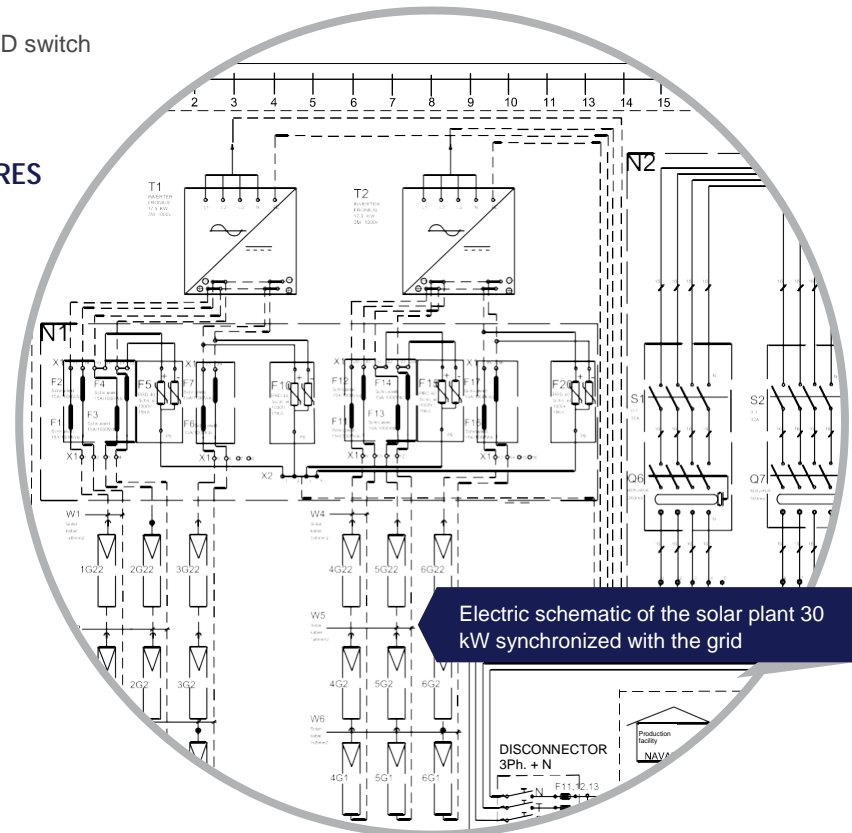
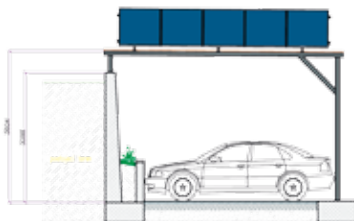


▶ SYSTEMS THAT INCLUDE DESIGNING AND MANUFACTURE OF STEEL STRUCTURES

Complete preliminary design, from supply to realization that includes testing and commissioning with all permits and certificates.



Preliminary design of the parking lot shelter



Electric schematic of the solar plant 30 kW synchronized with the grid

- ▶ **USE AND SALE OF ELECTRICITY TO THE GRID** – solutions for systems of 5 kW, 10 kW and 30 kW that foresee connection to the existing electricity grid, use of electricity produced on your own, and sale of remaining electricity to the grid.

Equipment	5 kW	10 kW	30 kW
Photovoltaic modules 30V/250W	20 pcs	40 pcs	136 pcs
Inverter	7kW 1 pc	11kW 1 pc	16kW 2 pcs
Direct current distribution cabinet	1 pc	1 pc	1 pc
Alternating current distribution cabinet	1 pc	1 pc	1 pc
Solar cable	100 m	250 m	650 m
Protective ducts for conductors	25 m	60 m	700 m

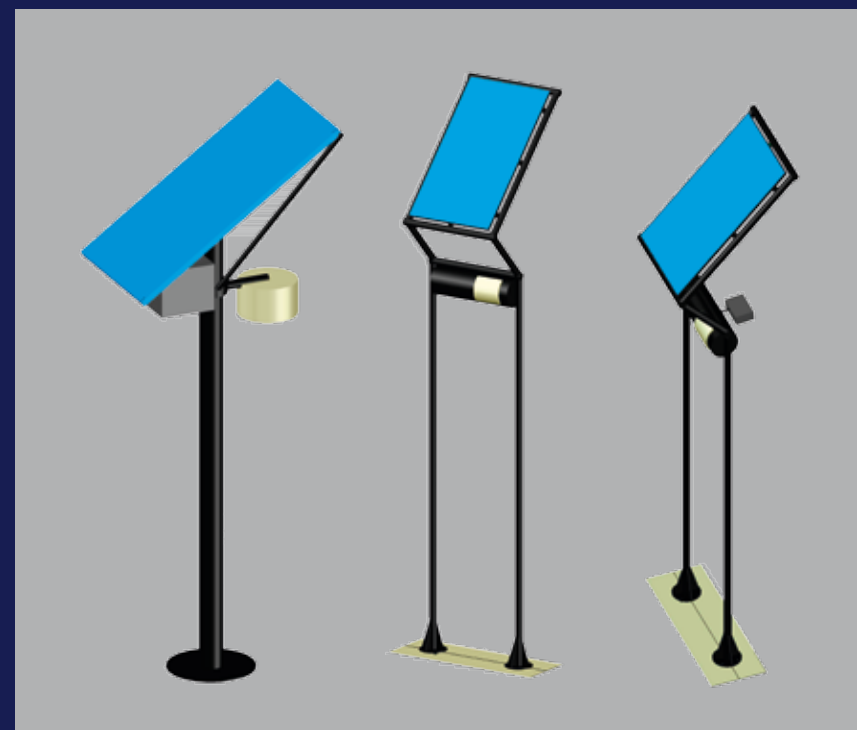


▶ SOLAR STREET LIGHTS

Solar street lights are manufactured in different heights, they are easy to mount, and can be positioned in all directions. They need low power, consume little energy, and give off sufficient light. They are suitable for the functioning of a plant (farm, production workshops), catering and accommodation facilities (hotel, restaurant), sports and recreational zones (parks, sports fields) and similar. Street lights are completely autonomous with the device for automatic switching on and off depending on the time of day (night or day). In case of cloudy weather, they switch on automatically, and have back-up for three days of functioning. The street lights have LED bulbs installed that provide 6,000 K which is sufficient for good light reflection towards the ground even at 6 meters height. Depending on desired power, two to four gel batteries are installed. The source is monitored via a regulator that switches battery charge on and off.

Basic characteristics

Dimension	H 5.80 m x W 1.15 m / ø 80 mm
Photovoltaic module power	250 W / 24 V / 8 A
LED lighting	30WIP65
Gel battery	24V 50 Ah
Autonomy	3 nights
Lighting in lux	1900LM 5500-6000 K
Material	Galvanized iron





NAVALIS

ENGINEERING & PRODUCTION

Navalis d.o.o. is a company that has been active since 2004 and is specialized in engineering, manufacturing and assembly in shipbuilding industry. Since 2013, Navalis has been offering complete solutions for the use of renewable energy sources, from consultations for the drafting of an optimal preliminary design through preparation of design documents and assembly of all components to commissioning. We offer systems that have been primarily tested and used in our own business premises: the production facility near Bjelovar, and the commercial building and the seat of the company in Podstrana near Split. The use of renewable energy sources is no longer a thing of the future, but socially responsible and rational solution for challenges such as unforeseeable market changes and for achieving independence from external systems and energy sources in an economical and long-term most cost-effective manner with nature and modern technology working together.

You are welcome to visit us and see for yourself the functionality and advantages of systems we offer. In direct conversation, we shall suggest solutions according to your desires and needs. We also offer information related to co-funding from funds for entrepreneurs and natural persons.

We are expecting your call and looking forward to our cooperation!
From now on, let the Sun work for you!

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