



pico

Solar System





Rural Electrification

With its work on numerous projects throughout the world, Phocos is quite experienced in the rural electrification segment. Via its 13 branch offices, Phocos offers customers friendly on-site service.

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pico

Experience the innovative multifunctional **Phocos Pico System** with integrated MPPT charge controller for reliable light in off-grid and rural electrification applications. Users can design their own Pico System according to their individual power needs via simple plug & play functionality.

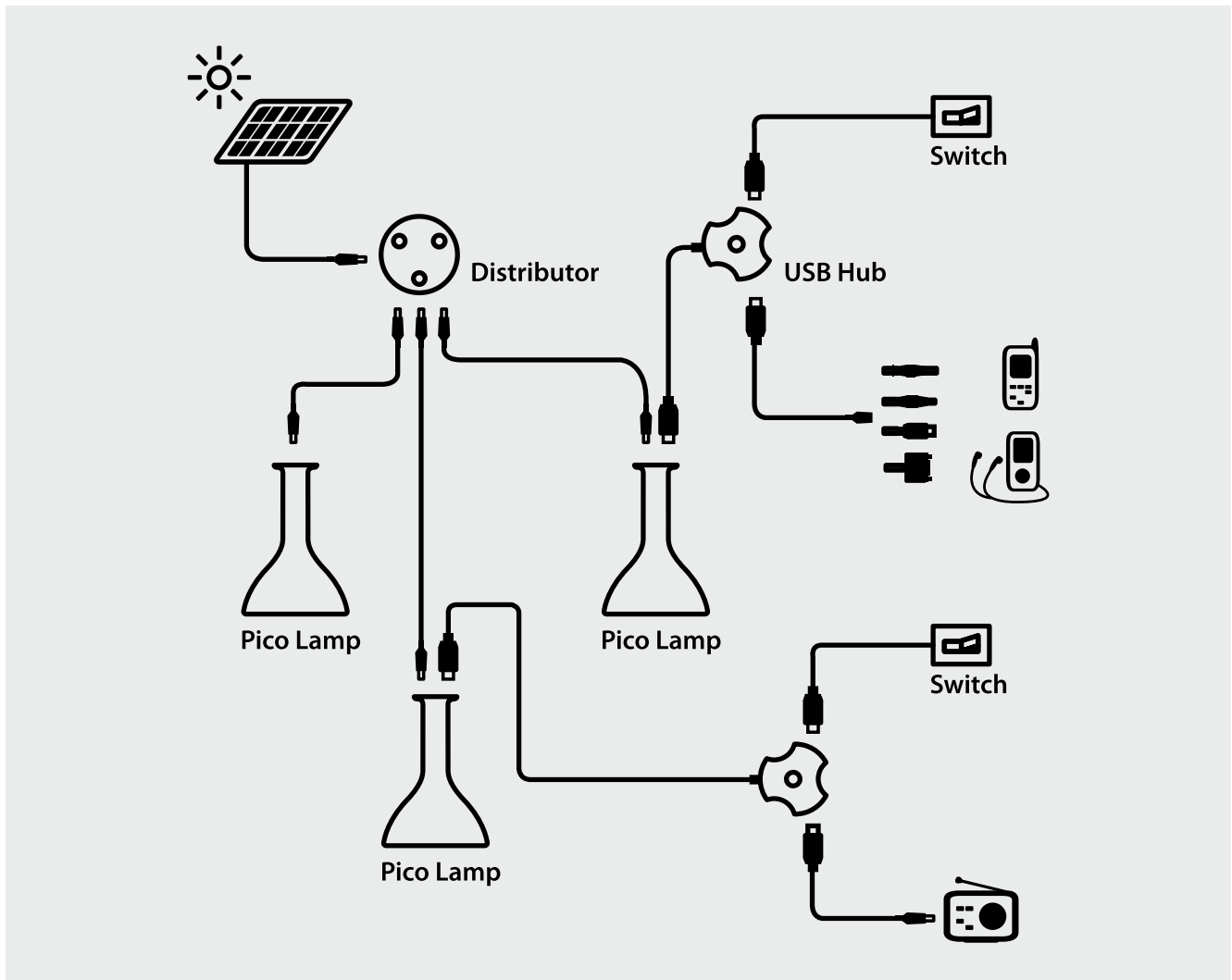
Applications

Ideal for rural electrification

- Solar home systems ①
- Farms ②
- Schools
- Health centers
- Forest and mountain lodges
- Boats (fishing and else)
- Emergency management
- Back-up systems
- And many more ...



Multifunctional Pico System



System Design Example

Easily design your own solar home system to meet your specific requirements! Integrate as many Pico Lamps as needed. Just plug & play and enjoy reliable lighting, including the charging of cell phones, MP3 players/radios, and other devices via USB-Plug – wherever and whenever you need it.

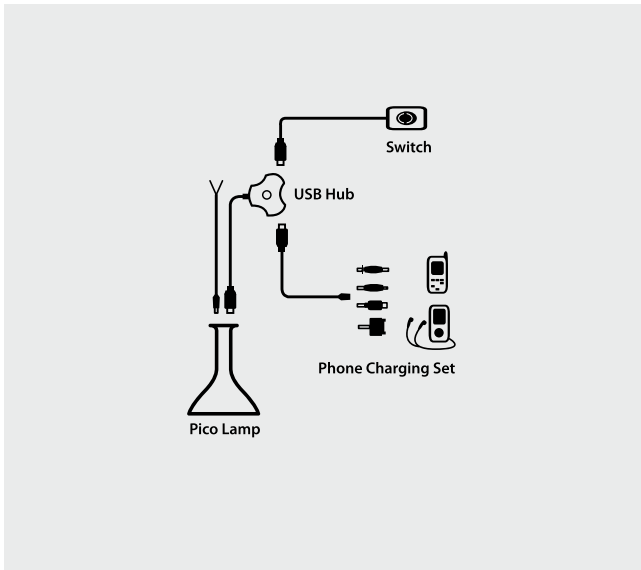


Distributor



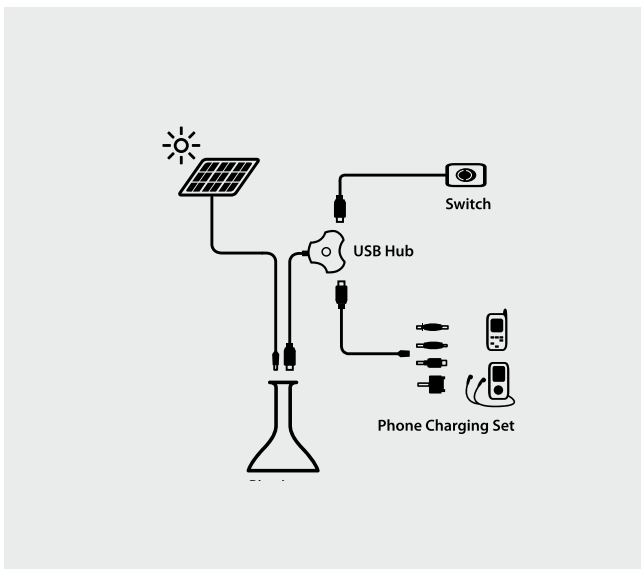
USB-Hub

Pico System Sets



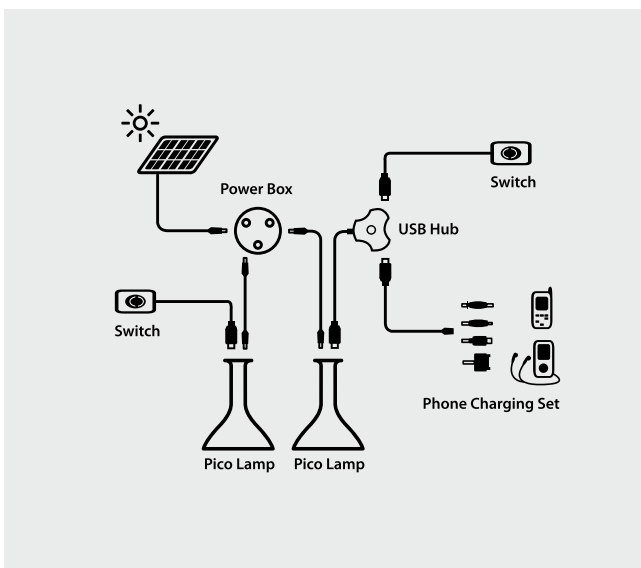
Pico System Starter Set

- Pico Lamp
- Pico DC Cable
- Pico USB Hub
- Pico Remote Switch
- Pico Phone Charging Set



Pico System Premium Set

- Pico Lamp
- Pico 3 Wp PV Panel
- Pico USB Hub
- Pico Remote Switch
- Pico Phone Charging Set



Pico System Premium Plus Set

- 2 x Pico Lamp
- Pico 5 Wp PV Panel
- Pico Power Box (Distributor)
- 2 x Pico Power Extension (Distribution Cable)
- Pico USB Hub
- 2 x Pico Remote Switch
- Pico Phone Charging Set

The Solution

Phocos

Phocos is a leading manufacturer of solar charge controllers and components for the autonomous supply of electric power.

Core competence: off-grid PV installations

In principle a PV system consists of four parts: the solar modules, a charge controller, the battery, and the electric-powered devices. Phocos solar charge controllers are an essential part of such systems. They safeguard the battery against overcharging as well as against a discharge in excess of a given limit value. In addition, Phocos charge controllers increase the efficiency of the system as a whole.

Pico System

Based on experience, research, and market analysis over many years, Phocos was able to design small, flexible systems suited to the special requirements of solar home systems used in rural areas.

Typical requirements of these systems include:

- Reliable light whenever needed
- Extended lighting cycles
- Long-lasting and reliable system
- Affordable and cost efficient
- Sophisticated and advanced replacement for candles and oil lamps

The solution: The Phocos Pico System

To meet the requirements of small solar system users, Phocos has developed the new intelligent and flexible Pico System. This innovation consists of the multifunctional Phocos Pico Lamp and a set of accessories for flexible application solutions.



Besides reliable, long lasting light and system efficiency, Pico Systems offer additional advantages:

System benefits

Whether as a complete, integrated Pico system or as an independent and portable hand-held lamp for early morning or late night work, Pico's flexibility is in the details. Its adjustable steel hoop offers a wide range of mounting positions – table top, wall, or ceiling – make it ideal for any work or other activities. A smaller system can be easily expanded into a larger, fully-integrated system to provide lighting in cabins with more rooms. It can also be used for very small applications with just a single Pico Lamp. No installation is necessary – just add as many Pico Lamps and accessories as needed via its simple plug & play functionality.

Pico Lamp

The Pico Lamp's handy shape conceals **multiple functions**: a ceiling-mounted lamp, a mobile, hand-held lamp, and a USB charger (for cell phones, MP3 players, etc.) – in a single device. Charging is highly flexible as well: Pico can be powered by solar modules, batteries, or AC adapters. Users do not need to be concerned about energy consumption, as the integrated Phocos MPPT charge controller extends battery lifespan and provides continuous light for more than two days (up to 55 hours). The robust housing is sealed against water and dust and is shock resistant – this protects the electronic components inside from soil, moisture, insects, and failures.

An added advantage: The Phocos Pico Lamp is the only lamp on the market, which has **no moving parts thanks to its soft touch switches**, thus eliminating conventional switch failures, one of the most common reasons for the breakdown of small solar systems.

Proven Materials

The energy saving LED light and the quality of the materials have been tried and tested over many years. Thanks to this proven experience, system efficiency will be higher and lifespan can be extended for several years. Last but not least, system costs are reduced substantially.

Soft touch sensor switches
for on/off and the three light levels



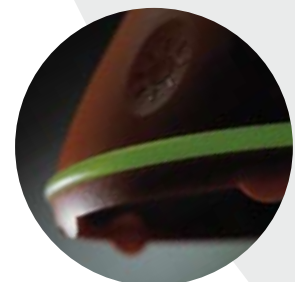
USB output
e.g. to charge cell phones



Charging
via solar module, 12 V battery or AC adapter



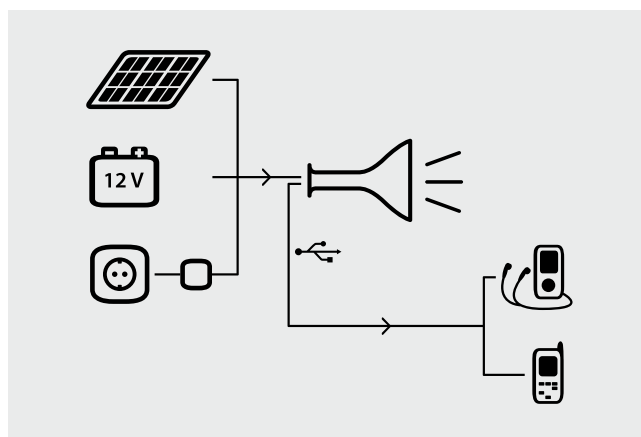
Fluorescent ring
for easy location in the dark



Pico Lamp



The Pico Lamp is a multifunctional portable device featuring a high-quality LED and an integrated MPPT charge controller. The Pico lamp can be charged or powered from three different sources: via solar module, battery, or AC adapter. Two touch switches power the lamp on and off as well as control light dimming for optimal comfort. The robust housing is sealed against water and dust and also is shock resistant – protecting the sensitive electronics inside.



Pico Lamp	
Product information	
System voltage	6 V (4 x AA NiMH, 2100 mAh, low self-discharge)
DC input charging	
Barrel connector for PV module (DC charging)/charging time	Ø: 5.5 x 2.5 mm/completely charged in 2.5 hours
Solar module/charging time	UMPP > 7 V, Uoc < 25 V (max. 1.5 A @ 7 V) or battery, 12 V (max. charging current 800 mA)/ 3 to 5 hours for full charge depending on solar radiation (via 3 Wp module)
Battery/charging time/charge cycles	12 V (max. 800 mA)/completely charged in 2.5 hours/at 2 A min/500 cycles
DC output	
Output voltage	4.4 – 5.1 V
Nominal output current	750 mA
Overload and short-circuit protection	Yes
Plug	USB-A
Environmental conditions	
Ambient temperature range	-20 to +50 °C
Light	
Level/color	120 lm/3,950 to 4,300 K
Lighting levels/light intensity	3 levels, level 1: 20 lm, 55 h; level 2: 50 lm, 16.5 h; level 3: 120 lm, 5.5 h
Size	
Dimensions	296 x Ø 155 mm
Protection class	IP65
Mounting	Steel hoop with seven notches for positioning (45 ° steps)
Weight	570 g

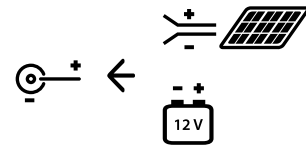
Specifications

Product information

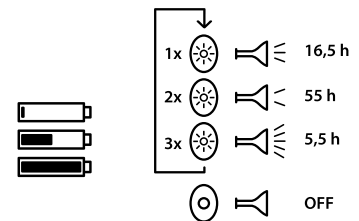
- Water and dust resistant (protection class IP65)
- No moving parts
- Robust housing

Functions

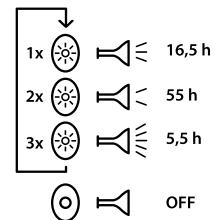
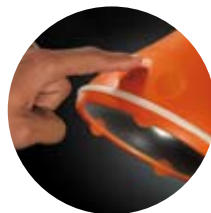
- Chargeable via three different sources:
solar module, battery, AC adapter
LED display for battery status



- Three light levels



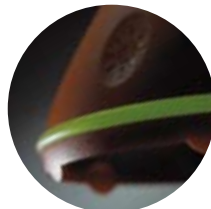
- Touch switches: no moving parts, no corrosion



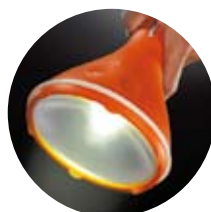
- USB connector for charging of cell phones, MP3 players, and other devices



- Phosphorescent ring provides easy locating at night and impact protection



- High power LED up to 120 lumens
- 50,000 h lifespan



Pico System Accessory Series



Pico Power Box (Distributor) for modular setup to charge several Pico Lamps in one system



Pico NiMH 2,100 mAh rechargeable batteries



Pico Power Extension for connecting the Pico Lamp with the Pico Power Box (Distributor)



Pico Dual USB Hub for using the remote switch and charging cell phones at the same time



Pico USB Extension with 3 m wire to extend phone-charger or switch



Pico Phone Charging Set for the most common cell phone brands



Pico Car Adapter 12 V for charging in a car or truck



Pico Remote Switch with 3 m cable for switching while the Pico Lamp is mounted at the ceiling



Pico AC Adapter Set for EU sockets also available for US, and UK sockets

The solar Pico System brings long-lasting light to a wide range of activities. Now, people have the possibility to work and read in the evenings while children do their homework.



Thanks to its reliability, people can gather for a long evening with enjoyable and pleasant light.





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