Poolstar

presents

THE MODULAR SOLAR KIT

WHAT IF YOUR POOL WAS THE FIRST STEP TO ENERGY INDEPENDENCE?



SAVINGS EVERY YEAR
PAYBACK IN 3 YEARS
(from your Modular equipment)

poolstar.fr



THE SOLAR SOLUTION DESIGNED FOR POOLS

Enjoy greater comfort while lowering your bills with solar energy for your pool.

With ApolloHub, you can make the most of your relaxation area while keeping your energy consumption under control.

Swimming, well-being... no compromises, no guilt.

POOL + SOLAR: THE SMART DUO

AN ECO-SMART POOL, A VALUED HOME

By equipping your pool with solar panels, you're making a choice that's sustainable, smart... and simply logical:

Reduce your bills
by harnessing maximum solar power precisely when your pool's consumption peaks.

Sustainably increase your home's
value with eco-friendly, visible equipment.

Reduce your carbon footprint
by choosing clean, renewable energy.

And that's not all:

Excess energy can be used to power your home!
Your pool becomes the starting point for broader energy independence.



YOUR POOL PROFESSIONAL'S ROLE:
TAILORED SUPPORT

Your certified pool specialist is your partner in this transition:

- ✓ **Personalized advice** tailored to your pool and project
- ✓ **Custom configuration and ROI calculation** with our online configurator
- ✓ **Professional, reliable, and compliant installation**
- ✓ **User training and post-installation support**

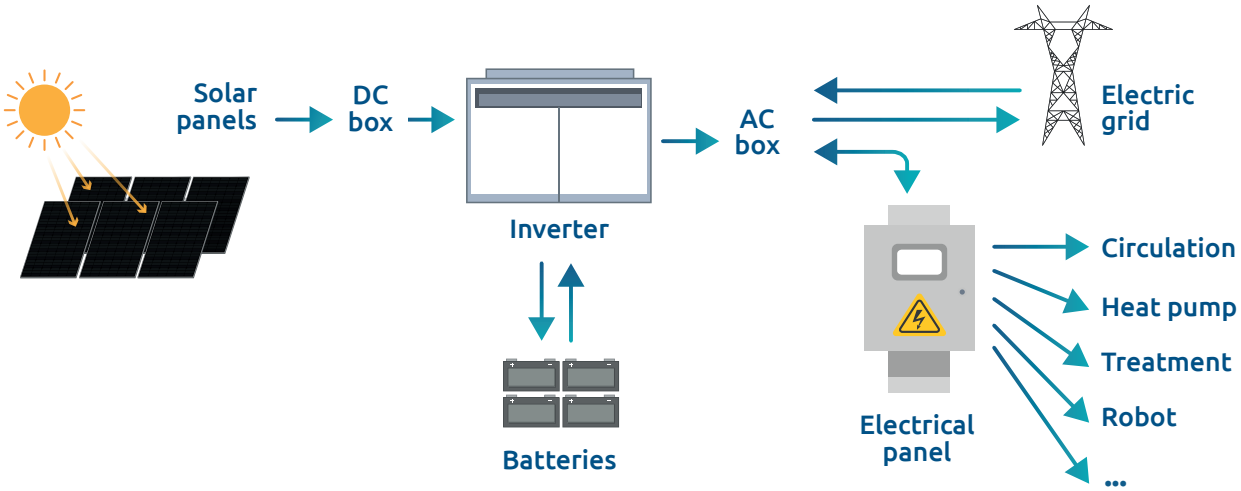
THE CONFIGURATOR

A SIMPLE TOOL TO FIND THE SOLUTION THAT SUITS YOU BEST.

Thanks to our online configurator, your professional can offer the ideal solar solution for your pool.
It provides your energy independence, annual savings, return on investment, and a preview of the installation on your home.
A simple, accurate, and comprehensive tool that allows your professional to support you and bring your project to life with confidence!

HOW DOES IT WORK?

The panels generate electricity, which is converted by the inverter to directly power your equipment (pump, heat pump, robot, etc.). Energy can also be stored in a battery or fed back into the grid, ensuring smooth and cost-effective operation even when the sun isn't shining.



Our 3 photovoltaic kits
A solution for every need

Solutions designed to fit your pool,
your equipment, and your energy consumption. Simply put.
The optimal configuration will be determined based on your energy assessment.



3kWc — Ideal for pools up to 25m³



500Wc photovoltaic panels


Mounting kit


3kW inverter



AC / DC boxes

6kWc — Ideal for pools up to 50m³



500Wc photovoltaic panels


6kW hybrid inverter


Mounting kit


5kWh battery
Optional



AC / DC boxes

9kWc — Ideal for pools up to 80m³



500Wc photovoltaic panels


6kW hybrid inverter


Mounting kit


5kWh battery
Optional



AC / DC boxes

Modular 3 kWc

Recommended for a 25m³ pool



TECHNICAL ROOM EQUIPMENT

- **Pump :** 500 W
- **Electrolyzer :** 50 W
- **Heat pump :** 0,8 kW



6 500 Wc **photovoltaic panels** → **12m²** **on your roof**

ANNUAL PRODUCTION*		SAVINGS
BERLIN	3 100 kW	1 224 €
LYON	3 865 kW	850 €
MADRID	4 650 kW	1 132 €



**PHOTOVOLTAIC GEOGRAPHICAL INFORMATION SYSTEM by the European Commission*
Price per kWh : Berlin : 0,3951€ - Lyon : 0,2016€ - Madrid : 0,2436€

range

Modular 6kWc

Recommended for a 50m³ pool



TECHNICAL ROOM EQUIPMENT

- **Pump :** 750 W
- **Electrolyzer :** 100 W
- **Heat pump :** 2,8 kW



12 500 Wc **photovoltaic panels** → **24m²** **on your roof**

ANNUAL PRODUCTION*		SAVINGS
BERLIN	6 200 kW	2 448 €
LYON	7 730 kW	1 700 €
MADRID	9 300 kW	2 266 €



OPTION ++

STACKABLE BATTERIES

5 | 10 | 15 kW

Store the energy you produce and use it anytime, even at night!

PHOTOVOLTAIC GEOGRAPHICAL INFORMATION SYSTEM by the European Commission
Price per kWh : Berlin : 0,3951€ - Lyon : 0,2016€ - Madrid : 0,2436€

Modular 9kWc

Recommended for a 80m³ pool



TECHNICAL ROOM EQUIPMENT

- **Pump :** 1100 W
- **Electrolyzer :** 100 W
- **Heat pump :** 3,3 kW



18 500 Wc **photovoltaic panels** → **36m² on your roof**

ANNUAL PRODUCTION*		SAVINGS
BERLIN	9300 kW	3 672 €
LYON	11595 kW	2550 €
MADRID	13950 kW	3396 €



OPTION ++

STACKABLE BATTERIES

5 | 10 | 15 kW

Store the energy you produce and use it anytime, even at night!

PHOTOVOLTAIC GEOGRAPHICAL INFORMATION SYSTEM by the European Commission
Price per kWh : Berlin : 0,3951€ - Lyon : 0,2016€ - Madrid : 0,2436€


FOCUS ON THE DIFFERENT COMPONENTS
“High-quality products for maximum performance.”
TOP-TIER EQUIPMENT
MAXIMUM PERFORMANCE
MAXIMUM DURABILITY



SPOTLIGHT ON

THE 500WC PHOTOVOLTAIC PANELS

Premium quality
Top-tier manufacturer

Full Black Design
Black frame

High efficiency
Up to 22.6%

500 Wc bifacial solar panel with half-cell technology, double glass, and Type N cells. Ultra-durable, high efficiency, ideal for shelters, pergolas, or solar installations around pools.

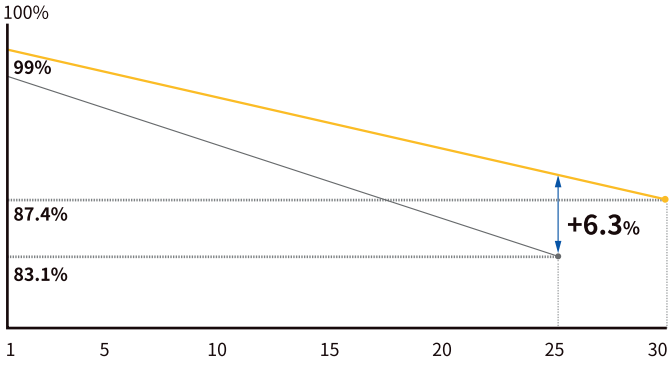
Premium cells

n-Bycium+

16 BB

MBB half-cell technology
> reduced electrical losses
> improved shading tolerance
> enhanced long-term reliability

- Superior power generation, reduced LCOE
- Best temperature coefficient
- Type n with significantly lower DIL
- Better response to low radiation



— Linear performance guarantee for standard panels
— Linear performance guarantee for bifacial bi-vertical panels type n

Mechanical specifications

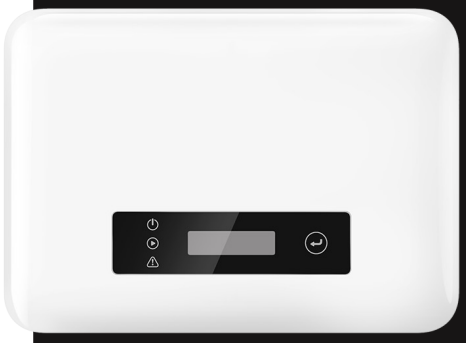
Cell	Mono
Weight	27,3 kg
Dimensions	1953 (± 2) x 1134 (± 2) x 30 (± 1) mm
Cable cross-section	4 mm2 (CEI), 12 AWG (UL)
Number of cells	120 (6 x 20)
Junction box	IP68, 3 diodes
Connector	MC4-EVO2A
Cable length (connector included)	Horizontal : 1200 mm (+) / 1200 mm(-)
Glass thickness (front / back)	2 mm / 2 mm

Electrical data

Maximum rated power (Pmax)	500 Wc
Open circuit voltage (Voc)	45 V
Maximum power voltage (Vmp)	38,26 V
Short circuit current (Isc)	14,05 A
Current at maximum power point (Imp)	13,07 A
Efficiency per panel	22,6 %
Power tolerance	-5 W à + 3 W

Operating conditions

Maximum system voltage	1500 Vcc
Operating temperature	-40 °C à +85 °C
Maximum series fuse rating	30 A
Maximum front static load	5400 Pa
Maximum rear static load	2400 Pa
Safety class	Classe II
Fire resistance	UL Type 29/ Classe C



3kWc

SPOTLIGHT ON

THE COMPACT 3KW INVERTER

Ultra-compact design
Lightweight

Optimized efficiency
< 97.6% efficiency

Silencer
< 20 dB

This ultra-compact, silent, high-performance residential inverter is designed for small solar installations. Compatible with high-power modules, it offers efficiencies of up to 97.6% and integrates smart monitoring and energy management functions. Ideal for modern homes, it is easy to install indoors or outdoors, thanks to its discreet, robust design (IP66).

The advantages of this inverter :

- **Home automation compatibility (Modbus-RTU/TCP)**
  Allows easy integration with a connected home system or third-party energy manager.
- **Intelligent supervision via mobile application**
  Real-time monitoring of production and consumption via Wi-Fi, LAN or Bluetooth connectivity.
- **Integrated mains injection limitation**
  Useful function for complying with local regulations, preventing mains overvoltage.
- **Continuous monitoring with minimum power consumption**
  Monitoring active 24 hours a day, even at night, with power consumption of less than 3 W.
- **High efficiency of up to 97.6%**
  Excellent energy efficiency for maximum value from every kWh produced.
- **Compatible with high-power modules (16 A per MPPT)**
  Perfectly suited to recent high-current panels such as half-cells or bifacial panels.
- **Extended MPPT voltage range (40 to 450 V)**
  Guarantees optimum production even in low sunlight or variable conditions.
- **Compact design, IP66 and fanless**
  Lightweight (4.6 kg), quiet and robust, ideal for indoor or outdoor installation.

General

Operating temperature	-25 °C à +60 °C
Weight	4,6 kg
Max. efficiency	97,6% (Euro 97,1%)
Dimensions (W × H × D)	306 × 218 × 119 mm
Protection class	IP66
Mounting	Wall
Connectivity	LAN, Wi-Fi, Bluetooth (optional) with app
Communication protocol	Modbus-RTU, Modbus TCP
Noise level	< 20 dB
Waterproofing	Plug & Play

Photovoltaic input

Max PV input power	3000 W
Max input voltage	600 V
MPPT operating range	40 V – 450 V
Starting voltage	50 V
Max current per MPPT	16 A
Max short-circuit current per MPPT	25 A
Number of MPPT trackers	1
Number of MPPT strings	1

AC output (mains)

Rated power	3000 W
Max. apparent power	3000 VA
Output voltage	220 / 230 / 240 V
Output voltage range	154 – 288 V
AC frequency	50 / 60 Hz
Max. output current.	13,7 A



SPOTLIGHT ON

6KW HYBRID INVERTER

6kWc
9kWc

Optimized efficiency
< 97.6% efficiency

Peak shaving
Limits power consumption

Fast switching
in the event of an outage

This inverter is an intelligent hybrid model, designed to accomodate a high-voltage battery. It offers ultra-fast switching in the event of a power outage and optimizes production thanks to its 2 independent MPPTs. Ideal for scalable, high-performance residential installations.

Key “smart” functions

It automatically manages the energy produced, stored and consumed, according to what’s happening in the home and on the grid. It optimizes performance without manual intervention

1. **Dynamic battery charge/discharge management**
2. **Ultra-fast switching in the event of a power outage (<10 ms):** uninterrupted power supply (UPS mode)
3. **Peak shaving** : limits consumption peaks coming from the grid, avoiding additional costs.
4. **Monitoring and control via mobile application** (consumption, production, storage, export, etc.)

Why is it a “hybrid” inverter?

It can manage both solar and battery power:

1. Direct connection to a high-voltage lithium battery (85-460 V).
2. It can operate :
   - PV only
   - PV + storage
   - Or with battery activated later
3. It supplies the house, stores the surplus, or returns it to the grid, depending on the strategy chosen.

In short: it combines the roles of a conventional solar inverter + battery inverter, hence the term «hybrid».

General

Operating temperature	-25 °C à +60 °C
Weight	17 kg
Dimensions (W × H × D)	354 × 433 × 147 mm
Degree of protection	IP65
Mounting	Wall
Connectivity	RS485, CAN, Wi-Fi/Ethernet (optional) with app

Battery input

Compatible battery type	High-voltage lithium-ion
Nominal battery voltage	350 V
Battery voltage range	85 V – 460 V
Starting voltage	85 V
Max charge/discharge current	25 A
Max charge power	6000 W
Max discharge power	6000 W

Photovoltaic input

Max PV input power	9000 W
Max input voltage	580 V
MPPT operating range	100 V – 550 V
Starting voltage	85 V
Max current per MPPT	16 A
Max short-circuit current per MPPT	21,2 A
Number of MPPT trackers	2
Number of MPPT strings	1

AC output (mains)

Rated power	6000 W
Max. apparent power from the grid	6600 VA
Output voltage	230 V / 220 V
AC frequency	50 / 60 Hz
Max. current fed into the grid	26,1 A
Max. current drawn from the grid	52,2 A

6kWc
9kWc



SPOTLIGHT ON

HIGH-VOLTAGE BATTERIES

Performance & reliability

Energy independence

Energy savings



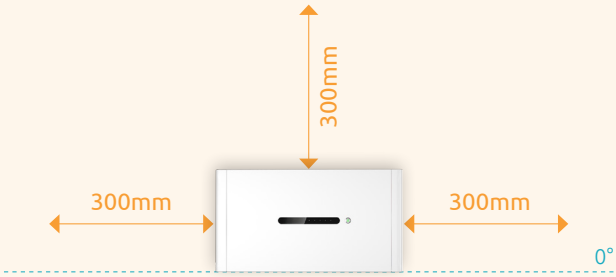
Easy to install *Easy replacement*

Designed to work with our hybrid inverter, **this battery offers a reliable and scalable solar storage solution thanks to its ultra-secure lithium-iron-phosphate (LFP) technology.** Stackable up to 15 kWh*, it adapts to your present and future needs. Perfectly integrated with inverters, it guarantees energy autonomy and continuous power supply for your equipment.

The advantages of this battery :

- **Guaranteed performance & reliability**
  Thanks to lithium-iron-phosphate (LFP) technology, for extended service life and enhanced safety.
- **Up to 15 kWh capacity**
  Stackable up to 3 modules, ideal for covering the energy needs of a heated pool.
- **Remote diagnostics and updates**
  Simplified supervision via the hybrid inverter, without manual intervention.
- **Easy installation, plug & play system**
  No complex wiring, self-detecting modules save installation time.
- **Automatic restart after undervoltage**
  Intelligent energy management for continuous, reliable power supply.
- **Integrated DC/DC converter**
  Optimizes flows between battery and inverter for greater overall efficiency.
- **Easy to replace and expand**
  Add or replace a module without reconfiguring the entire system.
- **Reduce your electricity consumption**
  Towards a more autonomous, economical and sustainable pool.

** More can be installed, provided that current standards are respected.*



Technical data

Usable energy (kWh)	5
Cell type	LFP (LiFePO
Nominal voltage (V)	Load: 435; Discharge: 380
Output voltage (V)	320 ~ 480
Nominal power (kW)	3
Peak power	5kWh, 10s
Operating temperature range (°C)	Load: 0 ~ +53 Discharge: -20 ~ +53
Relative humidity	0 - 95%
Max. operating altitude (m)	4000
Communication	CAN
Weight (kg)	52
Dimensions (W × H × D mm)	700 × 380 × 170
Degree of protection against penetration	IP66
Mounting method	Stacked on the floor / Wall-mounted

SPOTLIGHT ON



AC & DC BOXES

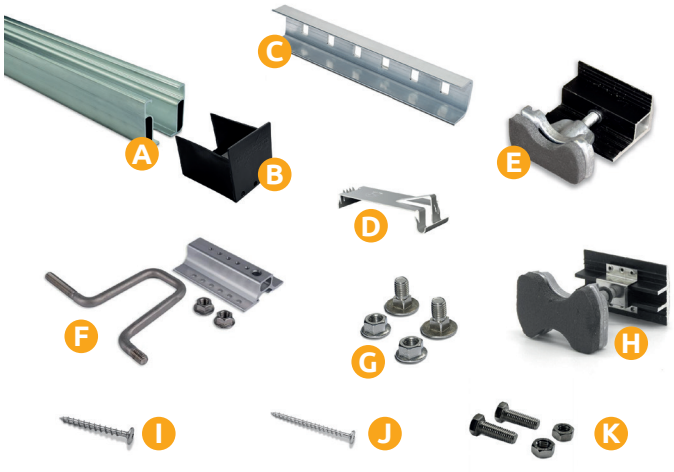
Modular kits include a pre-configured AC and DC box, ensuring safety, electrical compliance and simplified installation. All protection components are already integrated for fast, error-free connection.

SPOTLIGHT ON

FIXING KIT FOR TILES AND SLATES

The fixing kit included in each offer varies according to the power of the solar kit.

Each structure is sized to accommodate exactly the number of photovoltaic panels corresponding to the chosen kit, to guarantee a reliable, secure and ready-to-install installation.



		Kit 3kWc	Kit 6kWc	Kit 9kWc
A	Rail-C47 2,40m	6	12	18
B	C47-rail end cap black	4	8	12
C	C47-rail connector	4	8	12
D	Terragrif®	2	4	6
E	End panel fastening kit 30-42 C black	10	20	30
F	Chevron flex fastening kit	14	28	42
G	Screw kit for rail connector	4	8	12
H	Center panel fastening kit 30-42 C black	4	8	12
I	Wooden fastening screw 6x60	14	28	42
J	Wooden fastening screw 6x90	14	28	42
K	Safety kit anti-slip panel M8	6	12	18

Depending on your mounting requirements, we can supply other types of compatible kits:



Sloping roof in bitumen

Steel pan

Standing seam roofing

Flat roof

FAQ

Investing in a solar system is an important and profitable decision. It's perfectly normal to have questions: here are the answers to the most frequently asked ones, to help you make sense of it all.

1.
HOW DOES A SOLAR SYSTEM WITH PANELS, INVERTER AND BATTERY WORK?

Photovoltaic panels generate direct current (DC) from sunlight. The inverter converts this current into alternating current (AC), which can be used by your household equipment.

If a battery is present, it stores surplus production for later use (when there's no sun or during a power cut).

2.
IS IT PROFITABLE? WHAT'S THE AVERAGE RETURN ON INVESTMENT??

The return on investment of a solar installation depends on a number of parameters: the size of the system, your electricity consumption, the amount of sunshine in your region and energy price trends.

With our optimized kits, combining performance, reliability and cost control, you benefit from a return on investment that's generally faster than the market average.

3.
DOES IT WORK WITHOUT A BATTERY?

Yes, the battery is optional. An installation without a battery operates as a direct self-consumption system.

The battery is used to store energy not used during the day and release it in the evening, thus increasing your autonomy. It is only available for 6 and 9 kW kits.

4.
HOW CAN I OPTIMIZE MY SOLAR PRODUCTION?

To maximize your production:

- Face south if possible, at an angle of 30° to 35°.
- Avoid partial shading (trees, chimneys, etc.).
- Use your household appliances during the day to consume your production directly.

5.
CAN I MAKE MY POOL 100% ENERGY SELF-SUFFICIENT?

Yes. With a properly sized solar system and a battery, you can cover up to 100% of your pool's electrical needs (pump, PAC, electrolyzer...).

Autonomy depends on installed power, sunshine and time of use. Our 3 to 9 kW kits are designed for total or near-total autonomy.

6.
WHAT HAPPENS IN THE EVENT OF A POWER CUT?

With a conventional inverter, the system shuts down for network security reasons.
With a hybrid inverter and battery, certain areas of your home can remain powered (emergency mode).



7.
HOW LONG DOES A SOLAR INSTALLATION LAST?

Our guarantees:

- Panels: 25 years
- Inverter: 5 years
- Batteries: 10 years

8.
CAN I USE SOLAR ENERGY TO POWER MY POOL ALONE?

Yes, you can. The installation can be dedicated exclusively to pool equipment (pump, heat pump, etc.) or integrated into your overall consumption. Our kits are designed to adapt to both configurations.

9.
WHAT HAPPENS IF I PRODUCE MORE THAN I CONSUME?

If you don't have a battery, the surplus can be fed into the grid and sold via a resale contract.

With a battery, this surplus is stored and used later, increasing your self-consumption rate and autonomy.



Poolstar

THE MODULAR SOLAR KIT

WHAT IF YOUR POOL WAS THE FIRST STEP TO ENERGY INDEPENDENCE?

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