

# SOLAR CONTROL UNIT

#### AR21-CS



BITUBO

## Discover solar energy revolution with the AR21-CS Solar Power Unit

In a world where sustainable energy has become a necessity, the AR21-CS solar controller emerges as a state-of-the-art solution for those seeking to optimise the use of solar energy. Not only does this controller represent a major breakthrough in solar technology, it also offers a number of advantages that make it indispensable for true solar technology enthusiasts.



## **Advanced Digital Display**

In addition to the bitubo technology, the AR21-CS is equipped with a state-of-the-art digital display. This display not only offers a clear and immediate visualisation of operating data, but is also extremely intuitive to use. Users can easily monitor system performance, view real-time temperatures and access detailed information on the status of various components. The digital display of the AR21-CS is designed to provide precise data to help optimise the operation of the solar system. For example, it is possible to set alerts for excessively high or low temperatures, receive notifications about anomalies, and access historical performance graphs. This level of control allows users to take timely action to solve any problems and keep the system running at peak efficiency.

Another important aspect of the digital display is its userfriendliness. Even those unfamiliar with solar systems can easily navigate through the various menus and settings, thanks to a clear and well-designed user interface. This makes the AR21-CS accessible to a wide range of users, from experienced technicians to homeowners interested in improving their solar energy management.

#### The Bitubo Technology of the AR21-CS Control Unit

One of the distinguishing features of the AR21-CS solar controller is its twin-tube technology. This advanced system enables more efficient handling of thermal fluids, significantly improving heat transfer. With two separate pipes for inlet and outlet of the fluids, the controller ensures a continuous and steady flow, reducing energy losses and increasing the overall yield of the system.

The twin-tube configuration is particularly advantageous in large plants, where precise fluid control is crucial. This technology facilitates the maintenance of desired temperatures, contributing to a more efficient utilisation collected solar energy. In addition, the AR21-CS's twin-tube design reduces the possibility of air bubble formation, a common problem in one-piece systems that can compromise performance.

A further advantage of twin-tube technology is its ability to adapt to different system configurations. Whether you are working with a domestic or industrial solar system, the AR21-CS offers the flexibility and reliability needed to ensure optimal performance in every situation.



### **SOLAR PUMP STATION WITH INTEGRATED CONTROLLER**



#### **Integrated Controller**

The AR21-CS solar pump station is equipped with an integrated controller for optimal thermal flow management within the solar system. This controller is designed with advanced algorithms to constantly monitor operating conditions, adjusting fluid flow in real time to ensure maximum energy efficiency. Its real-time monitoring and control capabilities help avoid wasted energy, resulting in improved overall system performance.

## **Outstanding design**

The design of the AR21-CS solar pump station is not only functional but also aesthetically pleasing and designed easy installation and maintenance. The layout of the components has been optimised to ensure quick and easy access, reducing downtime during maintenance. Every element of the station has been designed to minimise clutter, allowing a neat and tidy installation, even in the tightest spaces.

#### Safety Group with Safety Valve

Safety is a priority in the design of the AR21-CS solar pump station. The integrated safety unit is equipped with a safety valve that protects the entire system from potentially damaging overpressures. This device is essential for preventing damage to the station and other components of the solar system, while ensuring safe and reliable operation. In addition, the safety assembly is designed to withstand extreme conditions, offering robust and long-lasting protection.

## **High Quality Enclosure for Heat Loss Reduction**

With regard to energy conservation, the invo- lucy of the AR21-CS solar pump station is made of high-quality materials that improve thermal insulation. This significantly heat loss, helping to maintain system efficiency. The casing is also designed to be weatherproof, ensuring that performance is not compromised even in the harshest weather conditions.

#### Controlled flow rate

The ability to control fluid flow is another distinguishing feature of the AR21-CS solar pump station. Thanks to highly accurate flow sensors and advanced control software, the flow rate can be optimally adjusted based on operational needs.

## **DIMENSIONS**

Height (with insulation): **450mm** Width (with insulation): **300mm** Depth (with insulation): **158mm** Centre distance: **1600mm** 

