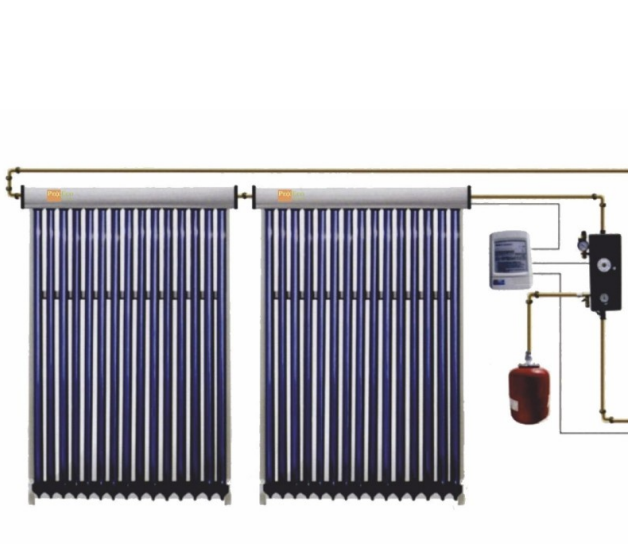
Solar Set PROECO JNCY-300 w/o T



Price: **6,500.00 PLN** gross

6,500.00 PLN for kpl.

Manufacturer: **- Pro Eco Solutions Ltd.**

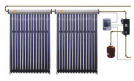
Referention number: **PROECO CY-300 W/O#B**

Condition:: **New**

Quantity: 0 pcs.

Information:

Solar set PROECO CY-300 w/o T:
- vacuum tube solar collector PROECO SC 30-58/1800 BLACK or 2 pcs. PROECO SC 15-58/1800 BLACK
- SR881 pump station
- without DHW storage tank







Product features

Hot water collection:	under pressure from the water mains
Surface mounting:	for flat or sloping to 80 degrees
Number of vacuum tubes (pcs):	30
Vacuum tube size (mm):	58 mm / 1800 mm
Use of Heat-Pipe:	YES
Heat exchanger in the tank:	heat-pipe stainless steel sleeves
Bracket:	galvanized steel, powder coated

Full product description

Complete solar kit PROECO CY-300 (without storage tank)

The kit contains all the key components needed to build a highly efficient solar thermal system. The set includes:

- **Efficient vacuum collectors:** PROECO SC 30-58/1800 BLACK (30 tubes) or in a configuration of 2 x PROECO SC 15-58/1800 BLACK (2x15 tubes)
- **Reliable pump station:** SR881
- **Intelligent controller:** SR881 with 3 temperature sensors

Note: The kit does not include a domestic hot water (DHW) storage tank, allowing you to select a tank tailored perfectly to your needs.

Application:

This is an ideal solution for ecological and economical water heating as well as central heating support. The system is perfect for single-family homes, guesthouses, holiday resorts, as well as facilities with higher heat demand, such as swimming pools, hospitals, or manufacturing plants.

Collector construction and technology:

The heart of the collector consists of **vacuum tubes made of reinforced borosilicate glass**. Thanks to the vacuum between the two layers of glass, heat loss is reduced to a minimum. The tubes feature exceptional resistance to temperature changes and mechanical damage, including **hail up to 25 mm in diameter**.

Inside the tubes is an innovative **triple ALN/AIN-SS/CU absorber with copper coating**. It absorbs up to 96% of solar radiation (both direct and diffuse), instantly converting it into thermal energy. Thanks to this technology, the collector is **up to 12% more efficient** compared to older generations and operates effectively even on cloudy days.

Inside each vacuum tube, a copper "heat pipe" is placed. Inside it, under reduced pressure, is a fluid that boils at a temperature as low as 25°C. The resulting vapor rises to the top, where it transfers heat to the manifold, then condenses and flows back down, repeating the cycle. This ensures **instant and highly efficient heat transfer**.

The collector manifold, which receives heat from the heat pipes, is made of copper and insulated with mineral wool resistant to very high temperatures. The entire unit is enclosed in a **lightweight and durable aluminum casing**, which greatly facilitates roof installation.

Operating principle:

The system operation is simple and fully automated:

1. **Energy absorption:** Solar rays heat up the inside of the vacuum tubes.

2. **Heat transfer:** Heat pipes instantly transfer the accumulated heat to the collector manifold, through which solar fluid (e.g., glycol) circulates.

3. **Water heating:** The heated fluid is pumped to the heat exchanger coil in the DHW tank (sold separately), where it transfers heat to the domestic water.

4. **Automatic operation:** The controller with temperature sensors manages the pump operation, turning it on only when the collector is warmer than the water in the tank, maximizing savings.

Thanks to the "dry" connection of the heat pipes with the manifold, **replacing an individual tube is extremely simple** and does not require draining the fluid from the entire system.

Installation method:

PROECO vacuum collectors offer **exceptional mounting flexibility**. They can be installed on pitched and flat roofs, building facades, and even on the ground using dedicated mounting frames. Installation is much simpler than with flat collectors – all components (frame, manifold, tubes) are carried onto the roof separately, eliminating the need for a crane.

The system allows for **covering up to 75% of the annual energy demand for water heating** and can effectively support central heating during transition periods. In case of excess heat in summer, system output can be easily reduced by removing a few tubes – a simple solution to system overheating.

Key benefits:

- **High efficiency all year round:** Operates effectively even on cold and cloudy days thanks to vacuum tube and heat pipe technology.
- **Reliability and easy service:** Damage to a single tube does not stop the entire system, and its replacement is quick and simple.
- **System flexibility:** Ability to select any storage tank and expand the system easily in the future.
- **Real savings:** Significantly lowers energy bills by working alongside existing heating systems.
- **Resistance to harsh conditions:** Durable construction resistant to hail and strong winds.

Installation and operating manual:

PROECO SC Manual.pdf

DHW storage tanks for solar sets

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Collector frame color	black
Collector manifold color	black
Number of vacuum tubes	30 (1x30 or 2x15)
Use of "heat pipe"	yes
Vacuum tube size	diameter: 58 mm ext. / 47 mm int., wall thickness: 1.6 ± 0.15 mm, length: 1800 mm
Absorber type	(aluminum nitride with copper and steel layers) CU/SS-ALN(H)/SS-ALN(L)ALN
Absorption efficiency	α = 0.92□0.96 (AM1.5)
Emittance loss	ε = 0.04□0.06 (80℃ ± 5℃)
Vacuum degree	P. ≤5.0X10⁻³ (PA)
Stagnation temperature	260□300℃ (inside empty tube)
Average heat loss	ULT 0.4□0.6 W/(m2□□℃)
Hail resistance	Φ25 mm
Service life	> 15 years
Wind resistance	180 km/h