

LET THE SUN SHINE

THE ADVANTAGES OF AN INDEPENDENT SYSTEM
SAFE, EFFICIENT AND SUSTAINABLE



SAER[®]
ELETTROPOMPE

SAER SOLAR SYSTEM

Being close to water sources is essential to the development and to the lives of people, flora and fauna. Unfortunately, in some remote areas it is not always possible to have access to pumping systems, because of the scarce electrical infrastructure. So, often time, people are forced to travel a long distance in order to reach a water source. Thanks to solar panel-powered pumps, however, it becomes possible to move water even without electric current. There are amazing advantages in using solar-powered pumping systems; this is why this has become the preferred solution in the agriculture and irrigation sectors. The more energy becomes available, the highest the pump performance. It's as simple as that.

WHAT DOES SAER OFFERS?

ALL PUMPS OF SAER



SAER's wide range of pumps can be powered by solar energy.

SOLAR HYBRID INVERTER



and the accessories that must be connected to the solar grid.

MAIN ADVANTAGES

ECONOMIC ADVANTAGE



Thanks to the energy that the sun provides, the payback period is fairly low when compared to diesel fuel and electricity.

SIMPLICITY ADVANTAGE



Programming the inverter is easy and intuitive. But not only that: it can also be set-up remotely. It is also possible to include a remote monitoring service of the main operation parameters for added peace of mind.

ECOLOGICAL ADVANTAGE



It produces no CO2, uses no batteries (which are expensive and hard to dispose of).

NO MAINTENANCE REQUIRED



It only requires the panels to be cleaned of dust and dirt.

WITHOUT ELECTRICITY



It delivers water without grid connections.

PRODUCTS RANGE

The SAER pump range includes high-pressure pumping systems, up to 60 bar, high flow pumps, up to 5000 m³/h, end suction pumps, normalized pumps in-line pumps, as well as submersible pumps and motors from 4" to 14", all of which can be powered by solar panels. They can be created out of many different materials, from cast iron to INOX AISI 316 steel, from bronze to duplex and super duplex.



A SUCCESS STORY

A solar-powered water pumping system in Central Asia where SAER was involved on the supply of pumps, while LAP Srl supplied the full electrical systems TDS Hybrid inverter (AC/DC).

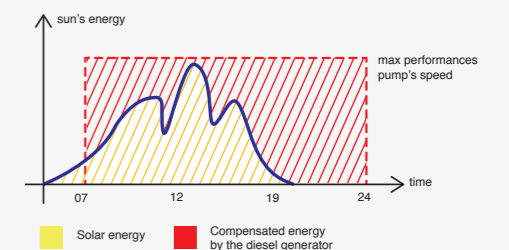
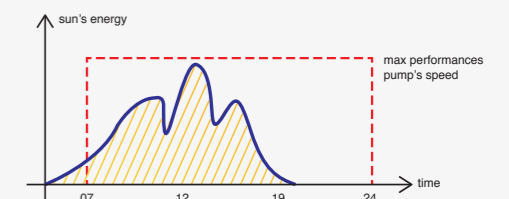
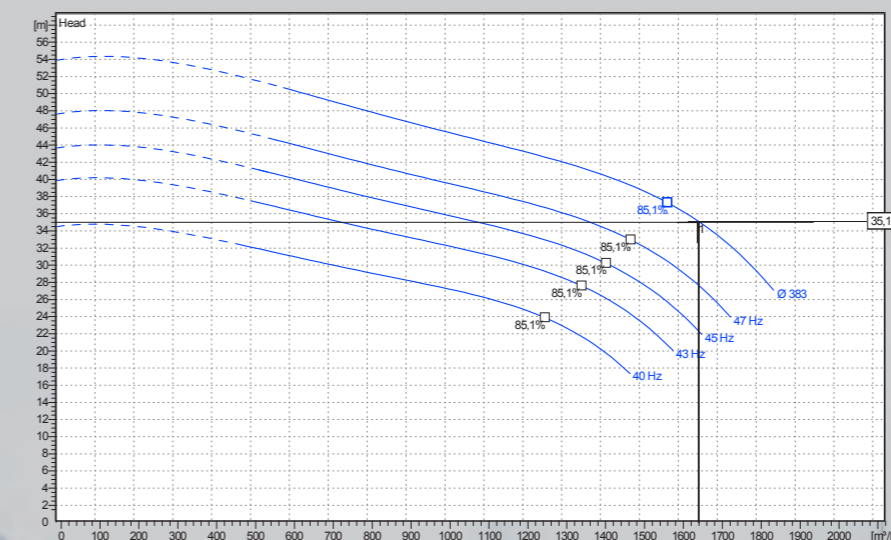
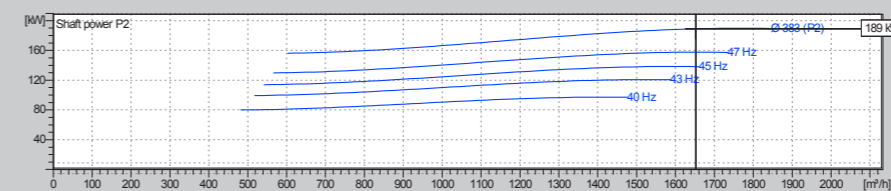
The facility is divided into two pumping stations: the first one with two pumps and the second one with three. All five pumps, model SKDW4P250-400-G- kW200, can count on a 200 kW power each, and at 35 meters of prevalence, they reach an hourly flux of 1.650 m³/h during the sunniest times of day.

Every pump is powered with a solar system with a power equivalent to 240 kW for a total of 1,2 MW.

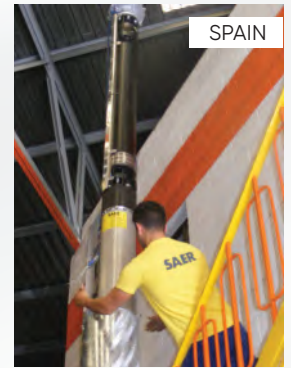
Every TDS Hybrid electric panel had been created with the possibility of connecting up to 20 more strings in mind, in case the client wishes to increase the yield of the solar panels at a later date, raising it to beyond 300 kW per pump. This would allow the pump to have a better performance during the hours with a weaker sun irradiation times of day, such as early morning and late afternoon. The electric panel is also set-up for a generator and electric grid connection so that it may work during the day as a hybrid system, using both the energy that is continuously produced by the solar panels and the normal alternate current, and during the night with only the alternate. This would allow the pump to work with constant pressure. This facility can water an area of 4000 hectares using only solar energy.



PERFORMANCE CURVES



CASE HISTORY



Example of SOLAR SYSTEM

