CirPUMP

Water solar pumping solutions
with standard motor drivers

CirPUMP

Direct Solar Pumping

CirPUMP solutions allow an efficient use of the maturity and robustness of the industrial motor drivers to operate water pumps at variable speed. The new solar string voltage control allows the use of this application in any climatic zone.
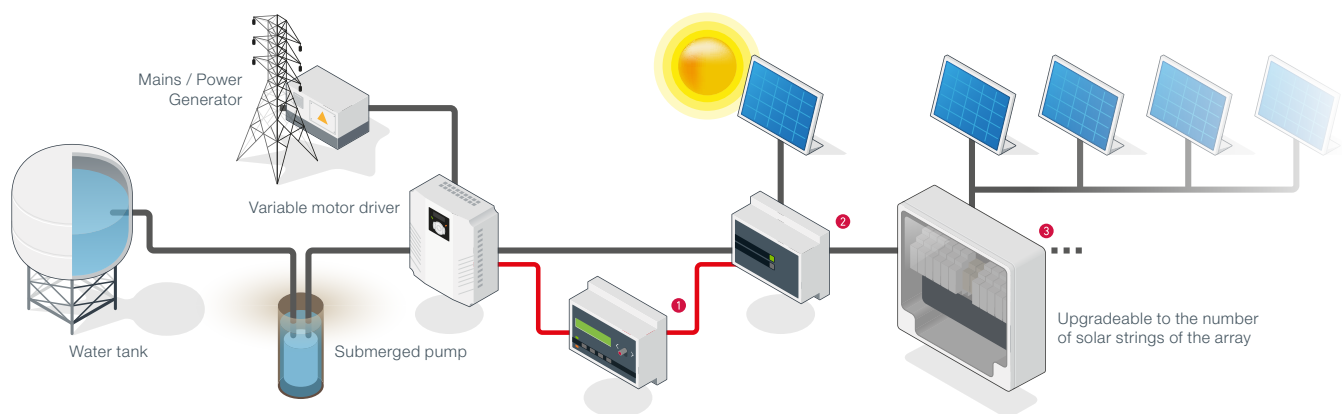
CirPUMP KITS

CirPUMP KITS are integrated solutions for the solar water pumping with standard motor drivers. Solar energy is collected by the photovoltaic modules, the variable-frequency motor driver converts the incoming direct current from PV to alternating current adjusting the right frequency and voltage magnitudes in function of the available solar energy. These kits incorporate all the elements needed for the best pump performance and the maximum efficiency of the solar energy:
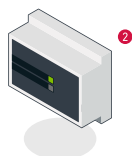
– Photovoltaic array. Solar modules and racking system
– Pump and MPPT controllers. **SPC** and **VSTC**
– IG5A and IP5A series from LS-IS motor drivers
– Motor-pump set for a wide range of hydraulic requirements
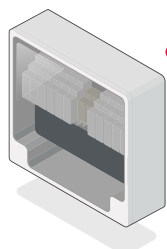– Monitoring devices and data logger

Solar pump controller (SPC)

The solar pump controller manages all the solar pump system. **SPC** incorporates specific motor driver control programming, the user doesn't have to expend time and resources and just an easy user friendly set up of the solution, simplifying the commissioning of the installation.

Voltage String Controller (VSTC-1, --- VSTC-6)

The voltage string controller allows the optimization of the solar field by connecting/disconnecting the right number solar of modules on each string to adjust the appropriate operating voltage based on different environment temperatures, also it prevents to surpass the maximum voltage allowed in the motor drivers.

The **VSTC-1** incorporates solar irradiance measurement, improving start/stop operations in sunrises, sunsets and cloudy days
The **VSTC** devices perform three important added value control differentiating **CirPUMP** solution from any other system in the market:

– Solar yield optimization
– Motor driver overvoltage protection
– Start/stop operations Improvement reducing solar pump stress

References

Family	Pump rates (inches)	Power (kW)	Elevation (m)	Water flow (l/min)
CirPUMP-6A	6	4-45	20-335	600-780
CirPUMP-6B	6	4-45	12-245	840-1020
CirPUMP-6C	6	4-45	10-190	1080-1260
CirPUMP-8A	8	4-90	15-420	900-1350
CirPUMP-8B	8	7,5-90	15-270	1500-1950
CirPUMP-8C	8	5,5-90	10-210	2100-2250

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