



UNIQA cooling system for a semi-submerged application

Situation

The Rasponi (RA) pumping system is the closing point of a 2,660-hectare basin, where various freshwater streams used for agricultural irrigation are lifted and carried to the sea.

The local integrated water service manager requested a new supply of submersible electric pumps for lifting the water which flows into the water basin of the system from the water channels of the area.

Since the pumps needed to work in channels with changing water levels, it was necessary to install machines equipped with an effective cooling system to make them suitable for operation in either totally or partially submerged conditions.

Solution

For this type of application, our engineers selected the UNIQA OC electric pumps with channel impeller which offers wide free passages and ensures regular and continuous operation even in presence of solids, avoiding problems of clogging or blocking.

All the machines installed are of the DRY type, in which the motor is cooled by a mixture of water and glycol which circulates in a special closed circuit thanks to an axial impeller attached to the shaft and to the special design of the double steel jacket which ensures the necessary heat exchange between the motor and the external environment.

In this way, the continuous operation (service class S1) of the pump is also guaranteed in dry installations, in partially submerged conditions and in high-temperature environments.

Benefits

The operator of the Rasponi pumping system is especially satisfied with the work of the Zenit UNIQA Series electric pumps, which have been operating with constant performance for a long time.

The UNIQA cooling system is maintenance-free and allows for smooth operation without unwanted plant shutdowns.

The benefits of the PREMIUM (IE3) efficiency of the UNIQA motors and the modularity of the Series, which allows to obtain optimised yields for each specific working point, guarantee reduced energy consumption and limited operating costs.



The site of the system



The UNIQA cooling system

Customer	CONSORZIO DI BONIFICA ROMAGNA				
Company Profile	Integrated water service				
Location	Rasponi pumping system	Country	Italy	Area	Europe
Application	Rainwater lifting				
Installed Products	3 x UNIQA ZUG OC 200B 9/6 AD				
Date	January 2019				