



## Case Study

### China, Wudongde, Hydroelectric Power Plant

The engineering plan was designed to protect the system from excessive pressure, avoid cavitation and keep a stable set downstream pressure

### Background

Wudongde Hydroelectric Power Plant is located in China - Jinsha River, between Yunnan Luquan County and Sichuan Huidong County. Total planned capacity of the station 10,200 MW, 12 turbines generating 850MW each. Construction began in 2015 and the first 2 turbines were in operation in July 2020. Currently all 12 turbines are operational since June 2021.



### Challenges

Protect the systems from excessive pressure starting at 140-170m reservoir water level down to 50m, avoid cavitation and keep a stable set downstream pressure. Target sites in the plant:

- Gravity water supply to turbine cooling shaft and lubricating system
- Main transformer cooling water system
- Fire water supply system.
- Air conditioning water supply system

### Solution

Install DOROT S300 PR+PR/EL in a series per turbine.  
30-PR set point 9 bar, 30-PR/EL set point 5 bar.  
For the fire protection water supply system, the pressure may be higher - up to 10 bar.  
Equipment installed at the site:  
48 × 500mm valves, 2 × 400mm valves, 8 × 300mm valves, 54 × 250mm valves, 2 × 200mm valves.

### Results

The requirements for the control valves were specified by the engineering design companies prior to procurement. Based on experience and reputation, Dorot Control Valves won the bids for the project. The valves were procured, installed and have met all expectations and performed according to the project specifications.

