

Mubarak Pumping Station – the World’s largest Egypt

The Egyptian government requires water to be pumped from Lake Nasser for irrigation purposes. The water will be transferred to the new irrigation area via the Sheikh Zayed Canal System. The central feature of the project is the Mubarak Pumping Station in Toshka.

The pumping station, which is located at the intake basin, will accommodate (in the final stage) 24 variable speed pumps with a total capacity of 288MW (24 x 12MW) and a total discharge of 400m³/s (24 x 16.7m³/s). The static suction head is 56m.

The pumping station dimensions are 145 x 60 x 45m (l x h x w).

The electrical supply to the plant is secured via a 220/11kV substation in Toshka and an 11kV busduct, which were also supplied by ABB in a separate contract under the Toshka Project.

ABB was the subcontractor responsible for the complete main electrical works.

Enduser: Ministry of Public and Water Resources, Egypt.

The project was completed in December 2003.





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Technical Specification / ABB Scope

Mubarak Pump Station

- 21x 14MVA 11kV load-commutated inverters
- 72x 11kV switchgear cubicles
- 53x 0.4kV switchgear cubicles (MCCs)
- 21x 17MVA phase shift transformers
- 6x 4MVA distribution transformers
- 346kVA uninterruptible power supply
- DC system
- Harmonic filters
- Low voltage bus duct
- Line reactors
- Brushless excitation system
- Erection supervision
- Commissioning

Note:

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