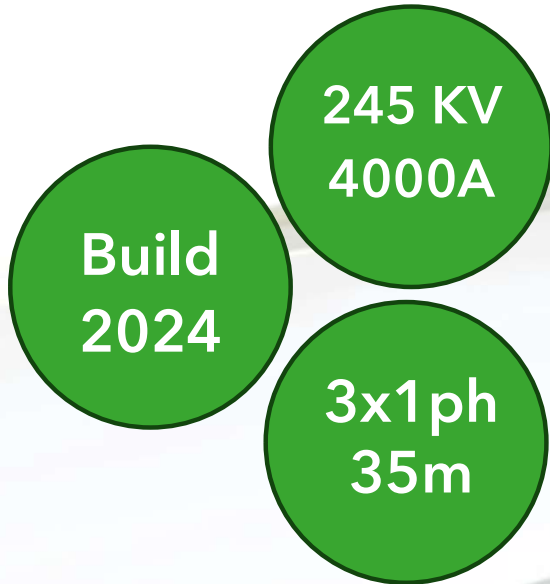


Pressurized Air Cable 245 kV, 4000 A

Test installation in existing support tunnel



Main ratings

- ⌘ Transmission power: 1600 MW
- ⌘ Rated voltage: 245kV
- ⌘ Rated current: 4000A
- ⌘ Enclosure type: Single-phase
- ⌘ Isolation medium: Pressurized Air
- ⌘ Rated pressure: 9 bar
- ⌘ Country: CH

Project description

This project was a test installation of pressurized air cables for 245 kV, 4000 A in an existing support tunnel below a Swiss Highway tunnel.

The installation was done to show feasibility of using existing tunnel-infrastructure for large power electric energy transmission. The use of pressurized air for insulation, the fireproof design of pressurized air cables as well as the low outside magnetic field are the key factors to enable such an installation.

Such an installation uses an existing tunnel and reduces the transmission length by going straight through the hill compared to an overhead line going around it.

Installation was done by Hivoduct using our proprietary roller system. Pressure and temperature was monitored. Many visitors were brought on-site to experience this new type of high-voltage cable.

Project was supported by Innosuisse funding.

"This was the first site installation of 245 kV pressurized air cables. It confirmed viability of using existing linear infra-structure for bulk high-voltage transmission."

W. Halaus, CEO Hivoduct

