

## LEITNER drive technologies

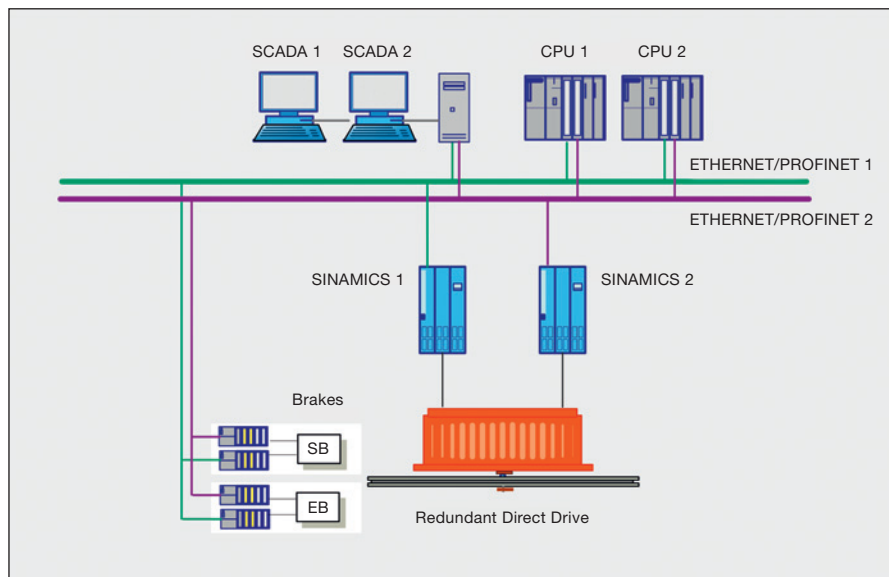
Intelligent solutions for highest ride comfort

**Basics** The perfect interplay between the motor, the converter and the mechanical parts is crucial for high passenger comfort. Intelligent drive solutions are required to ensure the smooth and reliable movement of the rope under any operation and load circumstances.

**Description** Variable-speed drives from LEITNER are designed primarily in three-phase AC drive technology with modern IGBT frequency inverters. For certain projects and in certain areas of application, approved DC drives will also continue to be used.

AC converters from Siemens with active-infeed technology are important components of our drive concept. Through our control algorithms, motor powers – ranging from a few kW to large drives in the area of 2–4 MW – are adjusted precisely and powerfully to the requirements of the mechanical system.

The exclusive direct drive from LEITNER is also driven by this frequency inverter technology. This innovative concept, which is based on a permanently charged synchronous motor, requires no gearbox and represents a groundbreaking model for energy-efficient, low-maintenance drives. In markets around the world, the principle of a slowly running direct drive is also successfully applied in LEITWIND facilities for alternative power generation – with performances ranging up to 3 MW.



**Advantages** The precise control dynamics of the newest converter generation provide **optimal kinematics** of haulage rope drives and station conveyors. **Ride comfort** is increased through a **jolt-free, smooth start and stop** by intelligent LEITNER software modules.

**Frequency converters** with active-infeed technology **increase the availability** of installations. By decoupling the motor from the electrical network, the entire drive system becomes less sensitive to voltage fluctuations or power failures. In **braking operation** of ropeways with active infeed, even during short power failures, there is **no AC converter tilting**, which means that there are no service interruptions.

LEITNER drives with AC technology are particularly **energy-efficient** and **power-grid-friendly**. Harmonics on transformers and cables are very low. The **power factor** is **one (1.0)**, so factually, only the active power is taken out of the electrical network – existing **medium-voltage installations** can be **used more efficiently**.

The properties of **AC motors** are ideally suited for the constantly **changing load and climate circumstances** of ropeways. The AC drive is **particularly low-maintenance** and in this regard – taking into account all costs across the entire life cycle – it is also **economically superior** to a DC drive solution.