

› LeitDrive

THE NEW FREQUENCY CONVERTER FOR LEITWIND

Advantages

- Very compact and modular construction
- Power range from 250 kW up to 3.000 kW
- Quiet and environmentally friendly
- Redundant drive solutions are offered very economically
- The inhouse know-how improves service quality, purchasing replacements and customer support
- Perfect matching of interaction between generator and frequency converter



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› LeitDrive: THE CUSTOM-MADE CONVERTER

The new LeitDrive is a state-of-the-art 4Q frequency converter developed and built completely by LEITNER ropeways. The in-house engineering considers application-specific details throughout the whole development process. It enables an unprecedented level of adaptation to customer needs and therefore a highly suited and economic choice for our clients.

Cabinet Design

LeitDrive is a modular system which covers a power range from 250 kW up to 3.000 kW. Each module is a fully functional unit including a grid and motor side inverter. The custom made, water cooled power stack allows an extremely compact size of only 400 mm width per module. The simple and elaborate mechanical handling simplifies the service.

Power Module

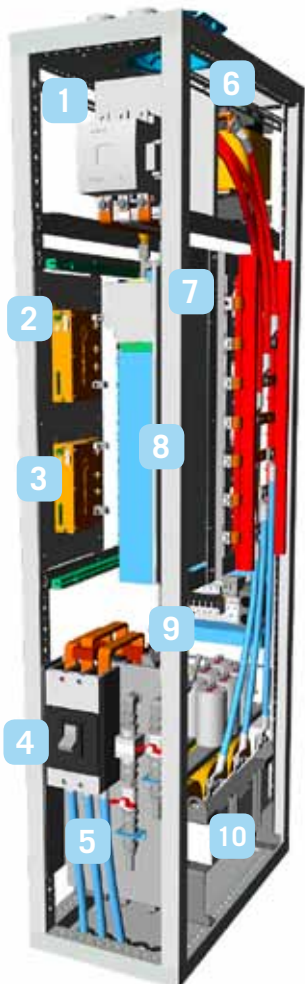
LeitDrive uses highly efficient, latest generation IGBT's. Due to the customized power stack the IGBT selection can focus on the application without compromise while at the same time avoiding uneconomic overdimensioning.

LEITDRIVE Control

In order to operate LeitDrive no installation of cryptic service tools is needed: user access takes place simply by using the built-in web interface. The most common fieldbusses are supported via extension cards. The control algorithm is optimized for the in-house developed generators which ensures to support the application needs at its best and results in unrivaled efficiency rates.

Wind Application Functionality

LeitDrive has been developed considering the wind application from the beginning. Thus, specific wind application functionality is implemented most effectively. The converter provides adapted filter design, reactive power control, low&high voltage ride through, soft braking system (SBSS), sensorless operation and a positioning system for maintenance in order to fulfill grid requirements and other operational needs.



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|----------------------------|-----------------------|----------------------------|
| General | Model | LeitDrive 250 kW mod. liq. |
| | Nominal power | 250 kW |
| | Overload capability | 150 % for 90s |
| Input | Type | Active front end |
| | Nominal voltage | 3-phase 690 V -15 / +10 % |
| | Nominal frequency | 50 Hz; + / -5 % |
| | Switching frequency | 1,5 - 4,0 kHz |
| | Nominal current | 260 A rms |
| Output | Nominal voltage | 3-phase 690 V |
| | Switching frequency | 1,5 - 3,5 kHz |
| | Nominal current | 370 A rms |
| Dimensions (per module) | Width | 400 mm |
| | Depth | 800 mm |
| | Height | 2.200 mm |
| | Weight | 260 kg |
| | Protection degree | IP54 |
| Cooling | Cooling type | Liquid cooled cold plates |
| | Cooling medium | Water / glycol |
| | Operating temperature | -20 to 45°C |

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|--------------------------------------|---|
| 1 CONTACTOR - MACHINE SIDE (OPTION) | 6 du/dt FILTER (OPTION) |
| 2 CONTROL SYSTEM - MACHINE SIDE | 7 POWER SECTION |
| 3 CONTROL SYSTEM - POWER-SUPPLY SIDE | 8 UNIT WITH POWER SUPPLY AND ACTIVATION OF THE AUXILIARY CIRCUITS |
| 4 MAIN SWITCH - POWER-SUPPLY SIDE | 9 PRECHARGING UNIT |
| 5 COOLANT CONNECTIONS | 10 LINE FILTER |