HydroCompact Power 75 kW

Energy and Automation Technology for the Smallest Hydroelectric Plants

Modular Compact Controller
The controller can be used for all conventional turbines up to 75 kW, e.g. Francis, Kaplan, Pelton, cross-flow turbines, water wheels, and hydroelectric screws. It is available in two sizes with ten output steps up to 75 kW for hydraulic drives (cylinder) or electric actuators (motors).

Options for specific requirements:
- Delivery of hydraulic power unit for turbine adjustment
- Frequency converter for variable-speed turbines

Basic functions for turbines – single stage regulator (e.g. Francis):
- Network monitoring according to VDE-AR-N 4105
- Feed-in via residual current device and 4 pole mains separation according to technical connection conditions (TAB)
- Generator branch with overcurrent- and short circuit protection, and current asymmetry
- All pole measurements of current/voltage/frequency/active power/idle power/cos-phi
- 24 VDC battery system
- Safety shutdown/Emergency stop
- Overvoltage protection for supply and level measurements
- PLC compact controller at high industrial standards
- Sensors: 1 x level measurement, 1 x guide wheel opening, 1 x rotation sensor
- Web visualization integrated in the PLC
- LAN, WLAN access point

Options
- Two-stage regulator turbines (electronic or hydraulic second control element)
- Temperature monitoring PT100/PTC
- Control of existing grease lubrication pumps
- Delivery and control of grease lubrication device
- Control of dry-running gates or head gates
- Control of rack cleaner
- Additional level measurement
- Compensation for asynchronous generators
- Battery, voltage, and current measurement
- Router for DSL, ISDN, or UMTS
- Alarm dialing unit
- Operating device: Touchpanel/iPad
Durable and Reliable
Equipped with standard industrial contactors from known manufacturers, such as ABB, Phoenix, Rittal, Siemens, WAGO, to guarantee long-term availability of replacement parts (up to 20 years).

Innovative Operation
The web visualization integrated into the PLC enables operation on site (LAN), from the vicinity (WLAN), or remotely (internet). You can operate the system from anywhere, monitor and call up data using a tablet-PC/smartphone (iPad, iPhone, etc.), or control everything from the fixed operating panel. An alarm via a potential-free contact (e.g. klaxon, dialing unit) or plain text (e.g. email or SMS) is also available.

Self-installation is possible
The clear assembly instructions enable quick orientation. If uncertainties should arise, we are always available to provide support over the phone.

Economical and Quickly Available
We can offer you a product at a very good price-performance ratio due to the need-based use of modules, the one-time system planning, and the production in small batches. Pre-assembled modules create the conditions for short delivery times. New developments can thus already be realized at a price of 9500 euro (plus VAT).

25 Years of Experience in Hydroelectric Power
“Made in Germany” by F.EE – Profit from the experience of a high-powered partner in the consulting, product, and service sectors.

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