



EMERSON. CONSIDER IT SOLVED.™

Hydroelectricity

www.emersonindustrial.com/automation

A range of solutions dedicated to power generation

Service

Expertise | Responsiveness | Proximity

Low and medium voltage asynchronous alternators and generators: maintenance, cryogenic cleanup, reconstruction, rewinding

Direct current exciters replaced by static solution based on industrial digital regulators and drives




EMERSON
Industrial Automation

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EMERSON
Industrial Automation

Hydroelectricity - A range of solutions dedicated to power generation

Tried and tested solutions



Alternators

- Voltages up to 15 kV
- Power ratings up to 20 MW
- Speed of rotation from 250 to 1500 rpm
- Product adapted and optimised for each project
- Installation possible on site
- Driven by any type of turbine
- Horizontal, vertical and inclined shaft
- Significant transfer of radial and/or axial forces
- Designed to withstand overspeed
- All cooling methods
- High efficiency levels
- Extremely flexible reactive power management over the whole power range
- Simplicity/reliability
- Wide choice of options and instrumentation

Generators

- Voltages up to 690 V
- Power ratings up to:
 - 1500 kW for asynchronous generators
 - 400 kW for magnet generators
- Speed of rotation from 600 to 1500 rpm
- IP23 or IP55 protection
- Driven by any type of turbine
- Horizontal, vertical and inclined shaft
- Designed to withstand overspeed
- IE2 or IE3 optimised efficiency
- Wide choice of options and instrumentation



Permanent Magnet Solutions
Dyneo[®]



Innovative solutions

- > Increased production time
- > Adaptation to hydraulic conditions
- > Constant search for maximum power by adapting the speed
- > Allows optimised use of a second-hand turbine
- > Control regardless of the technology and number of generator poles
- > Integrated, linear and controlled reactive power supplied



Frequency inverters

- Modular cabinet design
- Range from 100 to 2800 kVA
- For wound synchronous alternators, cage induction generators and standard or magnet low-speed generators
- 400 or 690 V voltages
- Air or liquid cooling
- Compliance with harmonic distortion and GRID CODE requirements
- Touch screen for "POWERSCREEN" supervision
- ETHERNET card for remote control
- Built-in overspeed control