



HYDRALTA NG

Automatic Voltage Regulator

The HYDRALTA NG automatic voltage regulator controls the stator voltage and excitation current of synchronous generator and motors. The wide range of functions and parameters offered by this product allow the regulator to be used in numerous applications.

The HYDRALTA NG is able to command thyristor bridges through a firing card or IGBT bridges, whatever the required power (few amperes up to more than thousand amps). It has several logic inputs/outputs allowing to monitor and drive its environment.

- Voltage regulation (AUTO mode)
- Excitation current regulation (MANUAL mode)
- Power factor ($\cos \varphi$) regulation
- Reactive power regulation
- Voltage matching
- Voltage droop as a function of reactive power
- Tracking between automatic and manual modes
- Manual and automatic soft start modes
- Excitation current (I_{ex}) limitation
- Limitation of reactive power absorbed and supplied
- Stator current (I_{stator}) limitation
- U/f ratio limiter (flux limitation)
- Monitoring and detection of rotating diode faults (RDF)

- Recording of electrical parameters whenever a fault appears (data recorder)
- Management of excitation redundancy
- Protection functions and management of excitation sequences
- Three phases voltage measurement
- One or three phases stator current measurement

Options:

- Power System Stabilizer (PSS)
- Possibility to modify excitation current or stator current limitation value by an external temperature measurement
- Redundancy with a second HYDRALTA NG regulator

HYDRALTA NG SPECIFICATIONS

(For options please contact our sales department)

Control Supply

Nominal 24V DC (18-36Vdc)
Burden 75W max.

Stator and Bus Voltage

Measurement

Stator: 100V-120V AC 50Hz or 60Hz (0-165% of U_n)
Bus: 100V-120V AC 50Hz or 60Hz (80%-120% of U_n)
Burden < 5VA

Stator Current Measurement

1AAC 50Hz or 60Hz (0-140% of I_n)
Burden < 10VA

Logical Inputs

Excitation ON
Manu Mode
+/- excitation reference order
Generator breaker status
Line breaker status
PF or var permission
PF or var selection mode
Reset
...

Logical Outputs

Watch dog ok
Trip order
Excitation contactor command
...

Analog Inputs/Outputs

4 programmable analog inputs (+/-10V)
4 programmable analog outputs (+/-10V)

Functions

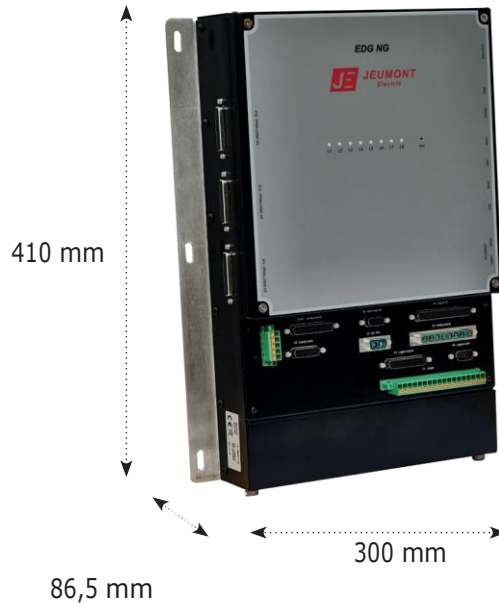
Automatic voltage regulation
+/-10% of U_n , acc.0.2%
Field current regulation
0 to 1.2 I_{exn} , acc. 0.2%
Excitation current limitation
Under excitation limitation (Mvar)
U/F ratio limiter
Stator current limitation
Oscillography
Power factor regulation
Reactive power regulation
Droop mode for parallel operation
0 to 20%
Rotating diode fault detection

Communication

Modbus TCP/IP
Configuration & Monitoring

Environmental

Operating temperature:
+5°C to +50°C
Storage temperature:
-20°C to +70°C
Humidity: 0 to 80%



CORPORATE OVERVIEW

Jeumont Electric designs and manufactures electric motors and generators for all types of applications. Capitalizing on its century long know-how and expertise as well as on its global presence, the company has a strong and acknowledged reputation for high-quality, reliable products, manufacturing and service.

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