



GLOBALTA NG

Automatic Voltage Regulator

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

The GLOBALTA NG is provided with an embedded power bridge, based on a full bridge built from 2 MOSFETs and 2 DIODES. This design allows realizing fast de-excitation during load rejection phases. The power bridge is able to provide an excitation current of 20 Amps with an ambient temperature of +50°C in continuous operation and 30Amps during 10 seconds. A stand alone protection settled at 350Vdc prevents the power bridge against overvoltage.

FEATURES

- Voltage regulation (AUTO mode)
- Excitation current regulation (MANU mode)
- Power factor (Cos ϕ) 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 Globalta NG regulator

ADDITIONAL INFORMATION

Please request Marketing Documentation or User Manual

GLOBALTA NG SPECIFICATIONS

(For options please contact our sales department)

Power Bridge Supply

50V to 230V from DC to 500Hz

Power Bridge Capability

20A_{dc} in continuous operation
30A_{dc} during 10s
350V_{dc} maximum voltage

Control Supply

Nominal 24V DC (18-36V_{dc})
Burden 20W

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

1A or 5A AC 50Hz or 60Hz (0-140% of I_n)
Burden <5VA

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
5 programmable outputs

Analog Inputs/Outputs

4 programmable analog inputs (+/-10V or +/-20mA)
4 programmable analog outputs (0-10V)

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
Webserver for configuration and Monitoring

Environmental

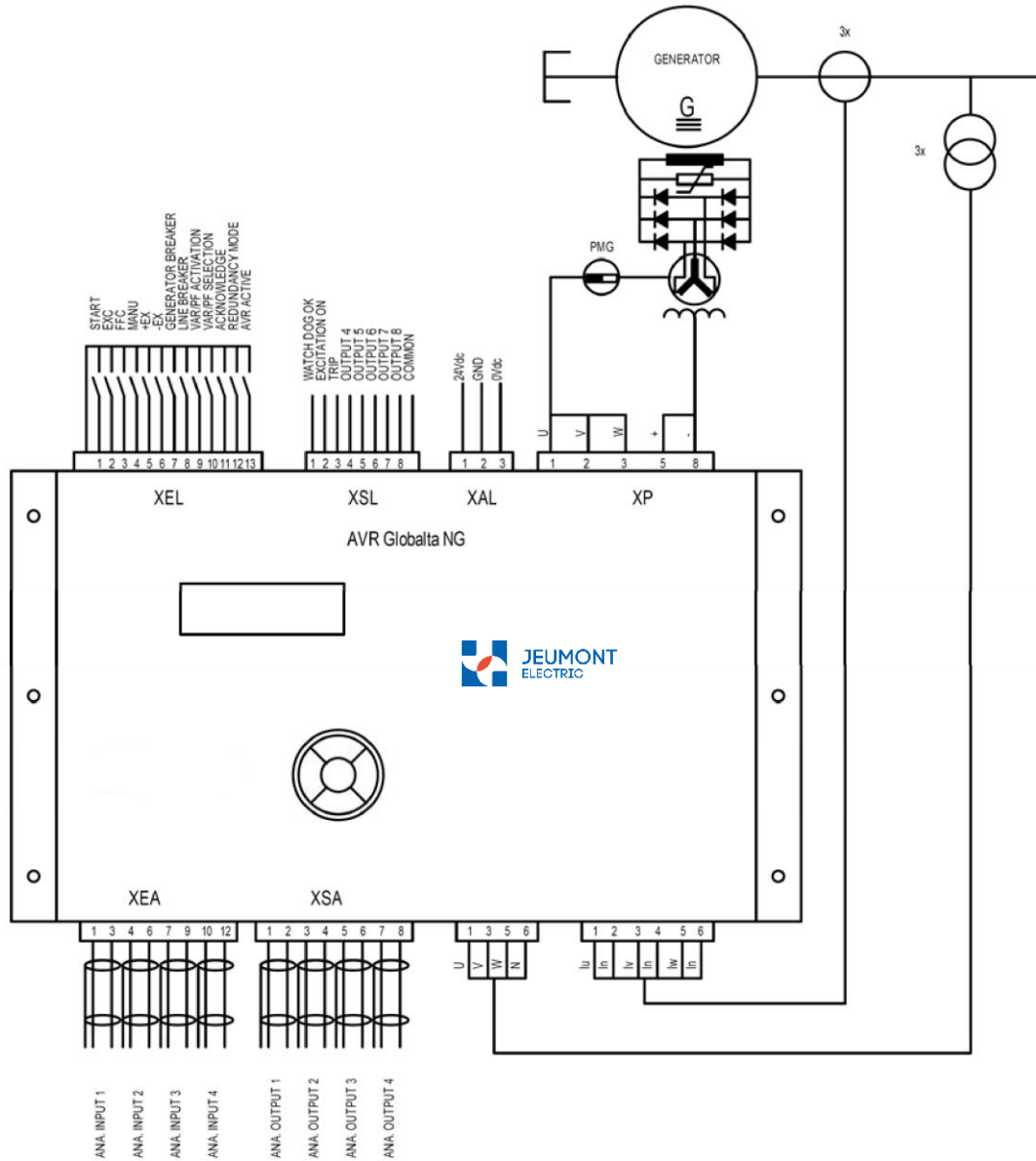
Operating temperature: +5°C to +50°C
Storage temperature: -20°C to +70°C
Humidity: 0 to 80%

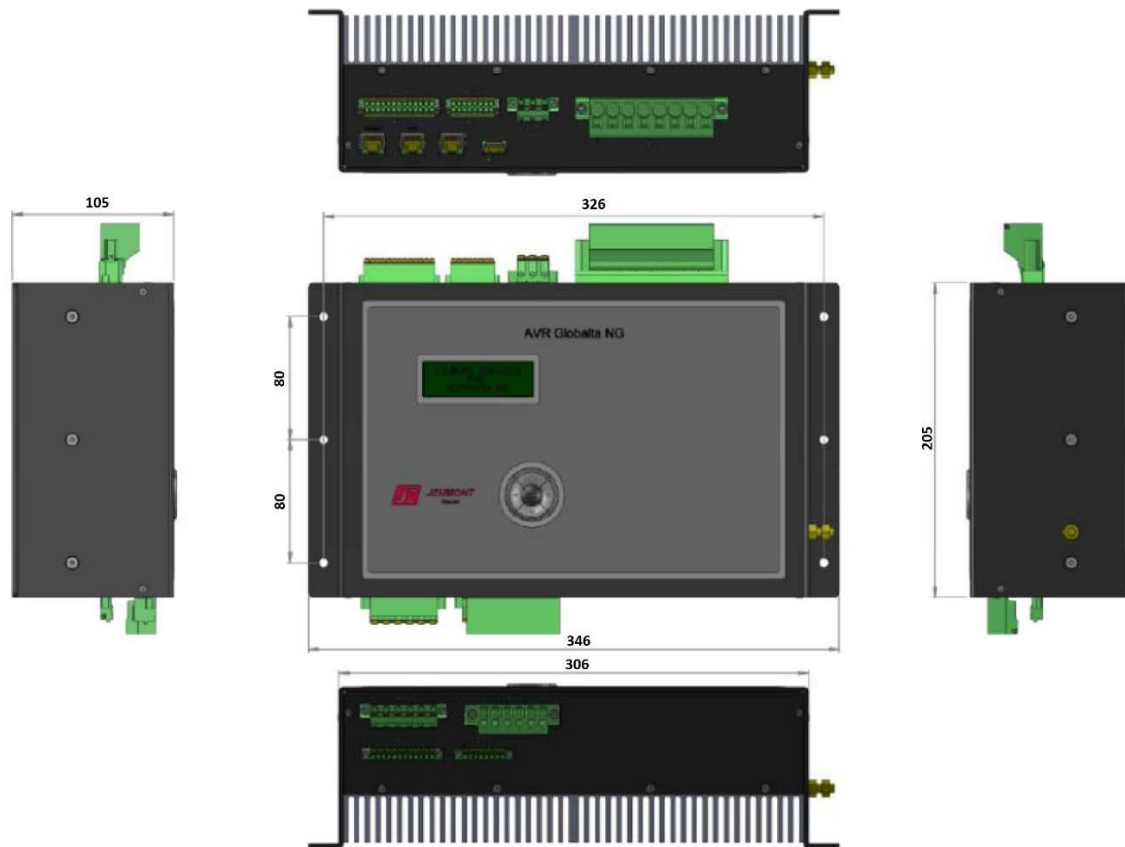


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ELECTRIC

OTHER OPTIONS ARE AVAILABLE ON REQUEST

SINGLE LINE DIAGRAM





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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