Load controller for small Wind- and water-power plant

Main applications:

■ **Small wind- and water-power plant for feed-into the grid**
==> load controller is used for the overvoltage protection of the grid inverter

■ **Easy wind heating system**
==> load controller enabled starting without load and individual operating point adjustment
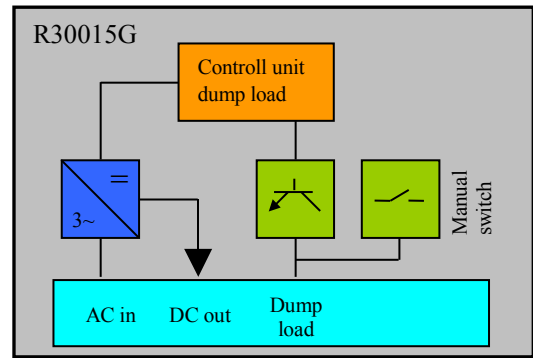
Specifics

- ☐ **extreme fast voltage limitation by FVC-technology**

- ☐ **trigger the dump load over Pulse_Wide_Modulation enabled accurate closed-loop control**

- ☐ **through 15A dc nominal current 3~ bridge rectifier already integrated**

- ☐ **manually step down the wind generator by hand switch possible**

- ☐ **built-in a coated steel-sheet housing provided for wall-fastening**

- ☐ **Indicator LEDs at frontside**

- ☐ **customized changes possible**

- ☐ **compatible dump loads available**

Describtion

The controller is used for limitation and/or control
the voltage of wind- and water-power plant.
At feed in grid systems the controller is taken
the overvoltage protection for the grid-inverter.
At easy wind heating systems the controler
enabled start-up without load.
If the setpoint value is reached the connected dump load
would be via pulse wide modulation switched on.
Now, the switch-on time of the dump load would be
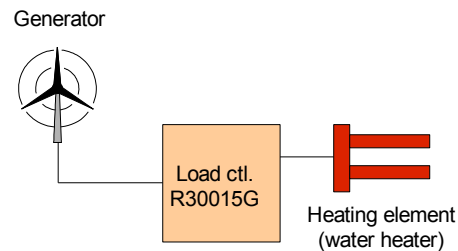controlled that voltage keeps constant.

Block diagram R30010G

Simplified block diagram of feed in grid system / wind heating system
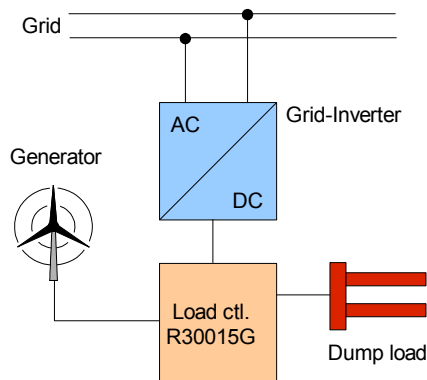
Feed in grid system

Wind heating system

Technical specifications

Power section	
Input voltage range	3x 0 – 250V (max. 290V) AC
DC-voltage limitation (adjustable)	ca. 60 – 350V (max. 410V) DC
Max. continue output current	15A (25A) DC

Control section	
Supply current (typ.)	6 mA
Close loop control typ	PWM
PWM frequency	440 Hz
control mode	PI + „FVC"
Max. voltage swing at 100% step change in load	1,1 x U set

General data	
Operating temperature	-10°C up to +40°C
Terminal	6mm² spring-type terminal
Enclosure	Coated steel-sheet wall-fastening Protection class IP 20
Dimensions bxhxt (mm)	200x300x160
Certification	CE

Subject to change without notic