

## - 2KW 24V PRO / 2KW 48V PRO CHARGE CONTROLLER -

Kw 24v and 2Kw 48v is new generation Pro Charge Controller. This device is not hybrid but it can be integrated into hybrid system, (important thing is suitable battery and suitable system). Solar charger and Wind charger can be connect parallel into same battery group.

The high-end device can also be used as a monitoring system. It is used to safely and efficiently charge and control your battery with the Wind Generator.

With its discreet appearance, simple operation, with integrated protection functions, this device has high efficiency and low no-load losses. This version of the controller will significantly increase the life and stability of the whole system, especially the batteries.

In addition, the control electronics in the control cabinet monitors the system voltage and brakes the wind turbine when a max. Overvoltage.

The special features and product information are listed below:

Use of external and high quality (Triacs), solid state components. Increasing the life of the controller.

Microprocessor controlled charge with integrated voltage and current limiting. Electromagnetic brake control. Integrated 3-phase short circuit breakers (brake switch)

Protection against lightning strikes. Protection against overcharging, deep discharge, short circuit, overload.

Integrated display.

The generator is automatically braked gently when the battery is full, modern braking system with external load resistance (Dump Load) to avoid the immediate blocking of the turbine. Increasing the life of the stator.

DUMP LOAD MUST BE PLACE IN HORIZONTAL AND MUST BE FAR AWAY FROM BATTERY AND CHARGE CONTROLLER (MIN 50 CM), OTHERWISE IT DOESN'T WORK EFFICIENT

### PRO 2KW 24V / 2KW 48V CHARGE CONTROLLER

Nominal Battery Voltage	48VDC	24VDC
Max Input Power Wind Turbine	2,2 Kw	2,2 Kw
Lcd with Display	Amper, Watt, Battery Voltage, Brake, Temperature	Amper, Watt, Battery Voltage, Brake, Temperature
Charging Voltage	52,8 V	25,2 V
Charging Current Wind Amperes Max	40 A	80 A
Generator On / Off Switch	After generator stop (after manual brake) please press mode 1 (off) , and generator is locked. (Safe braking is achieved in this way)  For active operation, please press mode 0 (on) and then close manual brake button	After generator stop (after manual brake) please press mode 1 (off) , and generator is locked. (Safe braking is achieved in this way)  For active operation, please press mode 0 (on) and then close manual brake button
Manual Brake Button	1- For manual brake, please press "off" mode 2- For operation, please press "on" mode	1- For manual brake, please press "off" mode 2- For operation, please press "on" mode
Reset Button	This button deactivates when generator was on automatic brake	This button deactivates when generator was on automatic brake
Battery Voltage Min	42 V	21 V
Automatic Brake for Wind Turbine (Over heating )	50 °C breaking / 45°C break out	50 °C breaking / 45°C break out
Automatic Brake for Wind Turbine (Stop Charging Voltage)	58 V +1	28,8 V +1
Wind Turbine Recharge Voltage	55 V +1	26,9 V +1
Cooling	External aluminium cooling fins	External aluminium cooling fins
Cable Termination	Battery (10mm) – Wind turbine and dump load (6mm) – Ground (4mm)	Battery (10mm) – Wind turbine and dump load (6mm) – Ground (4mm)
Protection Class	IP 20 (inside area)	IP 20 (inside area)
Dump Load	2Kw Braking resistor	2Kw Braking resistor
Operational Temperature	-20~ + 45 °C / 35~85%RH	-20~ + 45 °C / 35~85%RH
Temperature Compensation	-4mV°C/2V, -35°C --+80°C , Accuracy +-1°C	-4mV°C/2V, -35°C --+80°C , Accuracy +-1°C
Size	30*30*20 cm	30*30*20 cm
Weight	7 kg	7 kg
Recommended Battery Min	Acid & Gel (It can be redesign according to Lithium batteries)	Acid & Gel (It can be redesign according to Lithium batteries)

#### Reset Button:

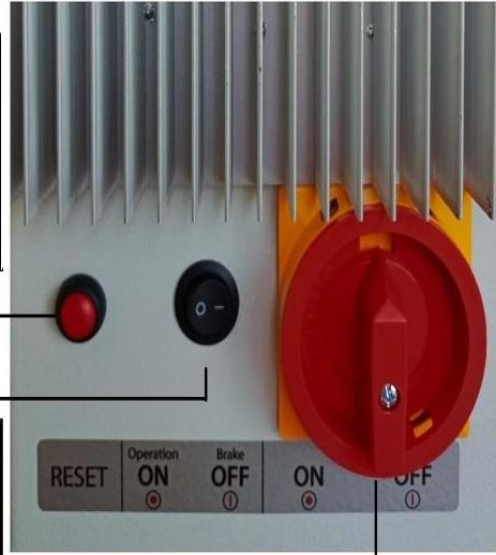
This button helps to understand if system in automatic brake or in manual brake.

If you push this button and in screen "BRAKE" text is dissappear for 2-3 seconds and then appear again. It means that it is in automatic brake. If "BRAKE" text never dissappear, then it means that it is in manual brake.

#### Manuel Brake Button:

1- for manual brake, please press "off" mode

2- for operation, please press "on" mode



#### Generator On / Off Switch :

After generator stop (after manuel brake), please press mode 1 (off) , and generator is locked. (Safe braking is achieved in this way)

For active operation, please press mode 0 (on) and then close manual brake button



#### Lcd Display:

Amper (Ampere), Güç (Watt), Akü (Battery Voltage), Fren (Brake), Temp (Temperature)



Topraklama



48 VDC