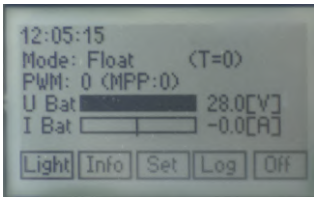
SOLAR/WIND CHARGE CONTROLLER WITH MPPT
(MAXIMUM POWER POINT TRACKING)

greenController 75/40

The highly developed g**reenController 75/40** Charge Control Unit by ECS is equipment with Maximum Power Point Tracking so that the maximum performance level of the solar module is constantly being determined. By voltage sensor connections and the temperature sensor the charging parameters are precisely identified in order to allow the highest possible duration of the battery. For use with generator outputs of typically 50 to 650 Wp with 12 V systems and 50 to 1300 Wp with 24 V systems. For higher generator powers, several green controllers can be connected inparallel. With its water and dust-proof housing and excellent protective functions, it is suitable for all areas of application.



Made in Germany

Product features and advantages

By our MPPT-Technology you achieve:

- Fast and precise tracking of the maximum performance level
- Excellent performance even with little insolation or sunset (100% PWM possible)
- Cost savings with same performance due to less and smaller solar modules needed

Network– and communication features

- RS485 interface works with open industry standard protocol (Modbus RTU)
- BMS communication possible (RS485 BUS or digital OVP/LVP signals)
- USB and Ethernet via optional converter

Display

- Graphic LCD display
- 6 LEDs to show operating status
- Wide range of display options (e.g. battery voltage, state of charge, battery current, watt-hour-meter for power input and output, etc.)

Further features

- Support for Lithium (LiFeP04, LiFehQ04, LTO), NiCd and lead-acid batteries
- Battery voltage up to 34 volt
- Water- and dustproof
- Support for cable size up to 35 mm²
- Data logging on SD-Card
- Low internal consumption
- Comprehensive setting of battery charge parameter
- Four-phase charge with equalize feature (all parameter adjustable)
- Four user defined input and output ports each (e.g. for deviating management)
- Alarm sound in critical operating conditions

ECS Falko Jahn e.K
Am Wenigerflur 14
54498 Piesport
www.ecs-online.org
mail@ecs-online.org
+49 (0) 6507 9989955

SOLAR/WIND CHARGE CONTROLLER WITH MPPT
(MAXIMUM POWER POINT TRACKING)

greenController 75/40

Mechanical data	
Dimensions	310 mm x 270 mm x 110 mm
Weight	3 kg
Max. cable size	Power terminal up to 35 mm² Control terminal up to 1.5 mm²
Cable glands	6 x M20 and 3 x M12
Protection class	IP54
Electrical data	
Maximum battery current	40 A
Maximum module current	40 A
Maximum conversion capacity	480 W at 12 V battery system 960 W at 24 V battery system The module output may be higher
Maximum PV-generator power	650 W at 12 V battery system 1300 W at 24 V battery system The module output may be higher
Maximum efficiency	97 - 99 % (depending on configuration)
System nominal voltage	12 V to 24 V
Battery operating voltage range*[1]	10 V to 34 V (e.g. 6 -12 Pb cells or 4 - 8 LiFeP04 cells)
Maximum solar off-load voltage*[1]	75 V
Measurement range input voltage	70 V
Warning message input voltage too high	70 V
Maximum own consumption	0.65 W
Transient overvoltage protection (Output + Battery + Input)	1500 W
Charging the battery	
Charging algorithm	Four-phase charge
Phases of battery charging	Bulk, Absorption, Float, Equalize
Temperature equalization	Coefficient (adjustable): Default: -5 mV/°C cell (25 °C reference) Range: -55 °C to +125 °C
Nominal value (adjustable)	Absorption, Float, Equalize, HVD, LVD, LVD-reconnect
Environmental data	
Ambient temperature	-20 °C to +60 °C
Storage temperature	-55 °C to +85 °C
Air humidity	100 % non-condensing

Electronic protection devices
- Excessive temperature
- Overload charge output
- Overload solar input
- Reverse current during night
- Deep discharge protection, overcharge protection
- Lightning surges and impulse voltage

Communication ports
- RS485
- USB (optional with converter)
- Ethernet (optionally with converter)

Inputs and outputs
- PV module, battery, load, RS485
- Temp. sensor
- Voltage sensor
- 4 x analog / digital inputs
- 4 x OC transistor switching outputs (50 V / 0.4 A)

*[1] The device may be damaged if this voltage is exceeded.

Made in Germany

ECS Falko Jahn e.K
Am Wenigerflur 14
54498 Piesport
www.ecs-online.org
mail@ecs-online.org
+49 (0) 6507 9989955