

PRODUCT INFORMATION

GREENCONTROLLER 75/40

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

ECS

*...because we enjoy to
accomplishing the impossible*

*Find prices and further information
on our website
www.ecs-online.org*

*Contact us per phone or mail
+49 6502 – 40 11 11
E-Mail: mail@ecs-online.org*

ECS

Electronic Construction Service
Isseler Str. 49
54338 Schweich
Germany

The highly developed **greenController 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 a temperature sensor the charging parameters are precisely identified in order to allow the highest possible duration of the battery. With its water and dust proof case and its excellent protection functions it is suitable to be used in all areas. For use with generator outputs of typically 50 to 700Wp with 12V systems and 50 to 1400Wp with 24V systems. For higher generator powers, several green controllers can be connected in parallel.



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
- ◆ Cost savings with same performance due to less and smaller solar modules needed

Network- and Communication features

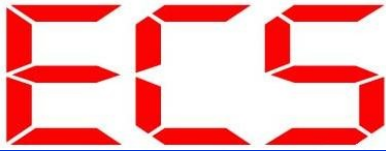
- ◆ RS-485: allows communication between several devices on a bus
- ◆ Communication with BMS possible (for lithium battery systems)
- ◆ USB and Ethernet with optional converter

Display

- ◆ Graphic LCD display
- ◆ Six 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 (LiFePO4, LiFeYPO4, LTO), NiCd and lead-acid batteries
- ◆ Battery voltage up to 34 volt
- ◆ Water- and dustproof
- ◆ Support for cable size up to 35mm²
- ◆ 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



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Mechanical Data

- ◆ Dimensions 310 mm x 270 mm x 110 mm
- ◆ Weight 3 kg
- ◆ Maximum cable size Power terminal up to 35 mm²
Control terminal up to 1,5 mm²
- ◆ Cable glands 6 x M20 und 3 x M12
- ◆ Protection class IP54

Electrical Data

- ◆ Maximum battery current 40 A
- ◆ Maximum module current 40 A
- ◆ Maximum conversation capacity 576 W at 14,4 V and 1152 W at 28,8 V
- ◆ Maximum efficiency 97 to 99 %
- ◆ System nominal voltage 12 V to 24 V
(e.g. 6 - 12 Pb cells, 4 - 8 LiFePo4 cells)
- ◆ Maximum solar off-load voltage*¹ 75 V
- ◆ Measurement range input voltage 70 V
- ◆ Warning message input voltage too high 70 V
- ◆ Operating voltage range of battery 10 V to 34 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: -5mV/°C/ (25° reference)
Range:
-55 °C to + 125 °C
- ◆ Nominal value (adjustable) Absorption, Float, Equalize, HVD,
LVD, LVD-Reconnect

Operating conditions

- ◆ Ambient temperature - 20 °C to + 60 °C
- ◆ Storage temperature - 55 °C to + 100 °C
- ◆ Air humidity 100 %, non-condensing

Equipped with protection against

- ◆ Excess temperature
- ◆ Overload-charge outlet
- ◆ Overload-solar input
- ◆ Reverse current during night
- ◆ Deep discharge protection, overcharge
- ◆ Lightning surges and impulse voltage

Communication Accesses

- ◆ RS-485
- ◆ USB (optional with converter)
- ◆ Ethernet (optional with converter)

Inputs and outputs

- ◆ PV-Module, battery, load
- ◆ RS485
- ◆ Temp. sensor
- ◆ Voltage sensor
- ◆ Four analog or digital input ports
- ◆ 4x OC transistor switching output (50 V / 0,5 A)

*1) The device can be damaged if this voltage is exceeded