

PRODUCT INFORMATION

GREENCONTROLLER 140/30

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
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Germany

The highly developed **GreenController Charge Control Unit** by ECS is equipped 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. It is optimal for off-grid-systems with up to 1400 W module power. With its water and dust proof case and its excellent protection functions it is suitable to be used in all areas.



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

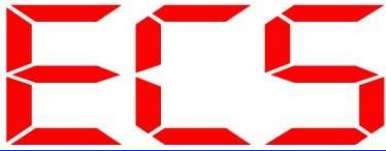
- ◆ RS-485: allows communication between several devices on a bus
- ◆ Communication with BMS possible (for lithium battery systems)
- ◆ USB and Ethernet with optional converter

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 64 volt
- ◆ Water- and dustproof
- ◆ Support for cable size up to 35mm²
- ◆ Data logging on SD - Card
- ◆ Low internal consumption
- ◆ Operating with full performance without losses up to 60 °C
- ◆ 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 30 A
- ◆ Maximum module current 30 A
- ◆ Maximum module output 360 W at 12 V and 720 W at 24 V
1400 W at 48 V
- ◆ Maximum efficiency 96 to 99 %
- ◆ System nominal voltage 12 V to 48 V
(e.g. 6 - 24 Pb cells, 4 - 16 LiFePo4 cells)
- ◆ Maximum solar off-load voltage 140 V
- ◆ Operating voltage range of battery 10 V to 64 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
Absorption, Float, Equalize, HVD,
LVD, LVD-Reconnect
- ◆ Nominal value (adjustable)

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)