



Front view



Side view

Efficient, reliable and faster energy: This solar charge controller regulates the power from the solar modules to the battery bank and the power from the battery bank to the load(s) and is as such the most important system component. It protects the battery against the damaging effects of over-charge and excessive discharge by keeping the charge/discharge cycle within prescribed limits. The special charge regulating technique enables a more efficient use of the available energy and the battery is charged faster compared to conventional controllers.

A combined external battery voltage and temperature sensor are included as standard.

Features

- Advanced temperatures compensated boost and float battery charge process
- Built in overcharge and deep discharge protection batteries
- Terminals for voltage / temperature sensor
- Reverse polarity protection on solar array module inputs, on battery connection and voltage / temperature sensor
- Protection against reverse current during night
- Low voltage and general alarm (optional)
- Load output with SOC (State of Charge) dependent switch off limit (excessive discharge protection)
- Load current compensated switch-off limit
- Over-voltage protection for load due to system high voltage
- Over-load protection for load output

Advantages

- Low frequency PWM (Pulse Width Method) charge regulating technique
- Three solar array inputs with separate solid state on/off switches and blocking diode functions
- Modular concept (CCU-IV range)
- Test switch for system diagnostic
- Separated build in control signals for powering alarm switching relays

Electrical Specifications			
Model / Type:	12V	24V	48V
Nominal system voltage	12 Vdc	24 Vdc	48 Vdc
Nominal array input current	3 x 18 A	3 x 18 A	3 x 10 A
Nominal output current to load	25 A	25 A	16 A
Maximum output current	50 A (1 min.)	50 A (1 min.)	30 A (1 min.)
Maximum modules input voltage	40 Vdc	50 Vdc	90 Vdc
Maximal battery input voltage	25 Vdc	40 Vdc	65 Vdc
Maximum total input current array	54 A (3 x 18 A)	54 A (3 x 18 A)	30 A (3 x 10 A)
Maximum output current to battery	54 A (2 x 27 A)	54 A (2 x 27 A)	30 A (2 x 15 A)
Typical operating current consumption	10 mA	10 mA	10 mA
Typical settings ⁽¹⁾			
System high voltage (alarm) / load disconnect	15.3 V	30.5 V	61.0 V
Boost @ 20 °C	14.5 V	29.0 V	58.0 V
Float @ 20 °C	14.2 V	28.4 V	56.8 V
Pre-warning low voltage (alarm)	11.8 V	23.6 V	47.2 V
Disconnect output low voltage (alarm)	11.5 V	23.0 V	46.0 V
Temperature compensation	-5mV / °C / cell		

⁽¹⁾ Standard settings for VRLA batteries, settings can be changed at factory for other batteries

General specifications			
Model / Type:	12V	24V	48V
Operating temperature	-10 °C to +55 °C		
Operating relative humidity	5% to 95% non condensing		
Storage temperature	-30 °C to +70 °C		
Construction	open frame		
Mounting	Indoor		
Unit weight	± 0,8 kg	± 0,8 kg	± 0,9 kg
Dimensions (H x W x D)	21,6 x 8 x 14,7 cm		

Features & Options	
Slave Unit	To extent the inputs of the solar array's, theoretical no limits
Meter Unit	For measuring, displaying: solar array current/voltage, battery current/voltage, load current/voltage
Output Relay	To switch larger output currents
Output Regulator	To regulate the output current and voltage to the load(s) e.q. Cathodic Protection
Voltage limiter	To keep the output voltage within adjustable limits
External battery / temperature sensor	To measure battery voltage and temperature for an optimum charge factor to ensure a maximum battery efficiency and a long lifetime