

- Long Life LiFePO4 Battery 3000cycles
- 12.8V System Voltage
- PWM charger with temperature protection and control
- Display:
  - Clear and easy to read LCD display for System Status
    - Battery SOC by 4 bars
    - Left runtime for connected loads
    - Charging/Load status
    - Failure status
- Manual load on/off button
- LCD Backlight button
- System Pre-Installed
  - Integrated battery
  - Integrated Charge controller
  - Integrated Battery Management System
  - Integrated Cell Balancing
  - Battery temperature control
  - Integrated battery emergency protection board for mechanical cut off in failure case (option)
  - Prewired
- Data logging (28days; 12 Months)
- Wire seal possible for avoiding system manipulation
- Optional Pay As You Go function
  - Transfer payment info by following options possible
    - Integrated Keypad enter token code
    - RFID/NFC card
    - Interface transfer
- Options:
  - Panel and Load air breaker 20/25Ah only
  - Lockable by Key for avoiding system manipulation
  - Wire seal possible for avoiding system manipulation
  - Wire installation tube adapter for easy wiring
  - Plug&Play
  - Remote monitoring 2G



The ALL IN ONE integrated System with its long life Lithium Iron Phosphate battery can provide excellent and long term energy service to the user. The single battery cell monitoring and control technology, implemented into the Zimpertec Solar Charge Controllers, ensure fast and save charging for best possible battery life time.

Built in terminals for solar panel and load output and air breaker will provide easy and save system installation.

Case with Seal option and Key Lock can avoid user access and system manipulation without notice

For protecting the battery investment an independent Battery protection board will disconnect the battery by fuse if there is any serious failure condition.

Technical Data:	Litio-SHS20-PWM	Litio-SHS25-PWM	Litio-SHS40-PWM	Litio-SHS50-PWM
<b>Battery:</b>				
Type:	LiFePO4			
Capacity:	<b>20Ah</b>	<b>25Ah</b>	<b>40Ah</b>	<b>50Ah</b>
Nominal Voltage:	12.8V (4 cells in Series, 3.2V each)			
Life time:	>3000 cycles (100%DOD) at 0.5C			

Battery protection:	
Emergency cut off	Battery disconnect at critical conditions which can reduce battery life or destroy battery: <ul style="list-style-type: none"> <li>• if too high battery voltage</li> <li>• if too low battery voltage</li> </ul> (can only be reset by service staff, not by user)

Charge Controller	
Charge Control Type:	PWM serial control with reverse current protection by Mos-Fet with Battery temperature control system
<b>Charge Current:</b>	<b>10A</b> <b>10A</b> <b>15A</b> <b>15A</b>
Control Algorithm:	Optimized for LiFePO4 batteries with single cell charge control
Panel Voc:	Max 25V
Load Control Type:	Mos-Fet with additional reverse Mos-Fet for wrong battery polarity protection and Free Wheeling Diode; 2 sets of load output terminal
<b>Load Current:</b>	<b>10A</b> <b>10A</b> <b>15A</b> <b>15A</b>
Protection	Over load, over temperature, reverse polarity, surge protection by Varistor
Others:	Manual load on/off button, backlight on button
Display	LCD with SOC, remaining load runtime at battery status, Status, Load status, Failure status Paid days (PaYG option) Backlight for LCD
Battery Management System:	cell balancing, cell monitoring, Battery temperature monitoring End of Charge Voltage: 3.55V/cell End of Discharge Voltage: 2.65V/cell Load Reconnect Level: ca. >20% SOC
USB Charging:	5V/1.5A USB charger 2*USB-A socket
Datalogger:	Information for 28 days + 12 Months Datalogger

Installation box:	
Box Dimensions	Ca. 335*235*150mm (can have variations please request details)
Charge controller	Front Panel type
Load Switch	Manual Load ON/OFF Switch
Load Terminal	Option: 4 * Barrel socket: 4.7/1.7mm Inside the System box: 4mm Screw at terminal for lug or fork crimp terminal installation
Battery terminal	Connect by plug to Charge Controller (battery built into the assembly box)
Panel terminal	Option: 4mm Solar terminal 4mm Screw at terminal for lug or fork crimp terminal installation
USB Data Interface	USB A socket for connecting Keypad and Data-Logger read out option Only for Zimpertec Interface adapter
Protection:	<b>Option:</b> (only for 20 and 25Ah) Panel input: double circuit breaker 10A (thermomagnetic) Load output: double circuit breaker 20A (thermomagnetic)
Option:	Pay as You Go: For transfer PAYG days: <ul style="list-style-type: none"> <li>• Keypad with 0..9 numbers confirm and delete buttons or</li> <li>• RFID system for Card or Token reading</li> <li>• Remote monitoring via 2G Mobile</li> </ul>