

# PWM Solar charge controller

## New ViewStar series



ViewStar series solar controller is designed for off-grid solar system, such as street light, solar home system or small power station etc. It has LCD display, reliable battery charging, full electronic protection, and programmable parameters.



### Models:

- VS1024BN/ VS2024BN/ VS3024BN/ VS4524BN/ VS6024BN  
10A,20A,30A,45A,60A  
12/24V auto work
- VS2048BN/ VS3048BN/ VS4548BN/ VS6048BN  
20A,30A,45A,60A  
12/24/36/48V auto work

### Features:

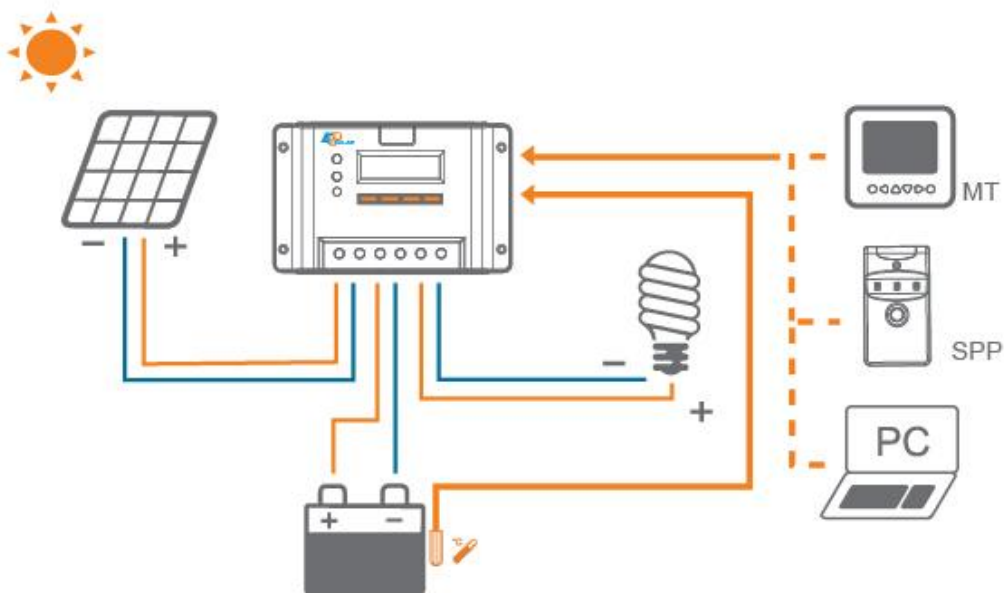
- Excellent EMC design
- 32 bit MCU with high speed
- High efficient Series PWM charging
- Four battery type options: Sealed, Gel, Flooded, and USER
- Intelligent lighting and timer control for solar lighting system
- 12 bit A/D high-precision sampling to ensure accuracy
- Use MOSFET as electronic switch
- Full control parameters setting and modification, diversified load control mode

- Humanized design of browser interface, undertake every operating conveniently
- Temperature compensation
- Adopt graphics dot-matrix LCD screen and HMI (human-machine interface) with 4 buttons, integrated menu displaying and operation
- Energy statistics function
- RS485 ports with MODBUS communication protocol
- Optional PC monitoring software and remote meter for real-time monitoring and battery management parameter setting
- Field upgradable firmware











### Electronic protections:

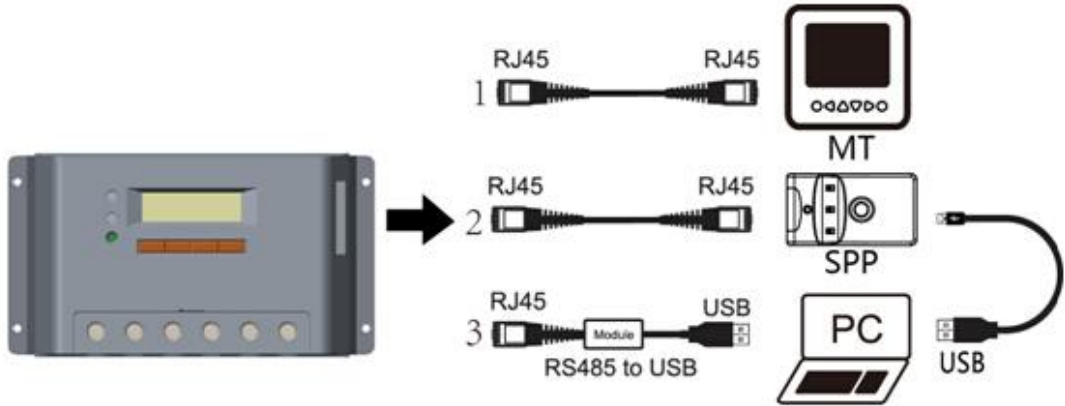
- PV short circuit protection
- Battery overcharge protection
- Battery reverse polarity protection
- Load short circuit protection
- PV reverse polarity protection
- Battery over discharge protection
- Load overload protection
- Overheating protection



## New generation ViewStar series VS. Old version

		VS***BN	VS***N
	Current	10A,20A,30A,45A,60A	10A,20A,30A,40A,50A,60A
	Battery type options	Sealed, Gel, Flooded, and USER (9-17V)	Sealed, Gel, Flooded
	Light ON+Timer	Two timer set	Single timer set
	Communication bus	RS485	TTL
	Communication protocol	Modbus	Customized communication protocol
	Energy statistics	YES	NO
	Remote meter	YES (MT50)	NO
	Button cell location	Open-top, convenient to change. factory default (without button cell)	Embedded, inconvenient to change





Three methods to configure the controller:

1–Remote Meter, MT50

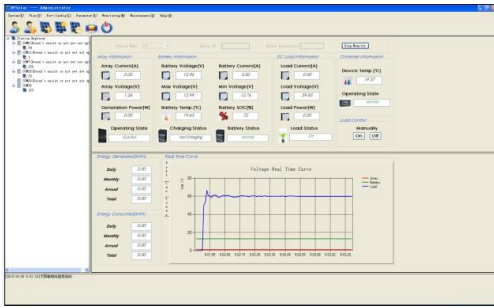
2–Super Parameter Programmer, One-key easily configure and apply to batch setting.

3–PC monitoring setting software “Solar Station Monitor

### Optional accessories :

<p>Remote meter MT50</p>	<p>Remote temperature sensor RTS300R47K3.81A</p>	<p>PC communication cable CC-USB-RS485-150U</p>	<p>Super parameter programmer SPP-01</p>

## PC software:



## Technical specifications

Model	VS1024BN	VS2024BN	VS3024BN	VS4524BN	VS6024BN
		VS2048BN	VS3048BN	VS4548BN	VS6048BN
Nominal system voltage	12/24V auto work	VS**24BN: 12/24V auto work VS**48BN: 12/24/36/48V auto work			
Rated battery current	10A	20A	30A	45A	60A
Rated load current	10A	20A	30A	45A	60A
Max. battery voltage	VS**24BN: 32V, VS**48BN:64V				
Equalize charging voltage	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Boost charging voltage	Gel: 14.2V, Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Float charging voltage	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V				
Low voltage reconnect voltage	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V				
Low voltage disconnect voltage	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V				
Self-consumption	≤15mA(12V); ≤10mA(24V); ≤9mA(36V); ≤8mA(48V)				
Grounding	Common negative				
Temp. compensation	-3mV/°C/2V				
Communication	RS485 / RJ45 interface				

**\* Technical data for 12V system at 25°C, twice in 24V system rate, triple in 36V system rate and quadruple in 48V system rate.**

Model	VS1024BN	VS2024BN	VS3024BN	VS4524BN	VS6024BN
Overall dimension	162x85x40mm	162x100x50mm	200x103x58mm	201x109x59mm	205x129x67mm
Terminals	4mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>
Net weight	0.3kg	0.4kg	0.7kg	0.8kg	1.3kg
Enclosure	IP30				

Model	VS2048BN	VS3048BN	VS4548BN	VS6048BN
Overall dimension	200x103x58mm	201x109x59mm	205x119x67mm	205x174x64mm
Terminals	16mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>
Net weight	0.7kg	0.8kg	1.2kg	1.6kg
Enclosure	IP30			

Environmental	
LCD temperature	-20°C ~ +70°C
Working temperature	-25°C ~ +55°C
Humidity	≤95% N.C.



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