

10A-60A PWM LCD controller

HES Solar controllers are high quality which are proven for long time use in off grid applications.

The controllers are now suitable for even larger systems. The devices also feature an integrated 2USB charging ports for charging smart phones and tablets. A large display informs the user about all operating modes with the aid of symbols. The state of charge is represented visually as a level meter. Data such as voltage, current and state of charge can also be displayed digitally as figures on the display.

Features

- Shunt topology with MOSFETs
- Automatic detection of voltage
- PWM control
- Multi stage charging technology
- Automatic load reconnection
- Temperature compensation
- Positive earth grounding
- Evening, night light and daylight functions
- Integrated self test
- Monthly equalisation charge
- USB charge socket for smart phones and tablets



Protections

- | | |
|----------------------|--------------------------|
| PV reverse polarity | Battery reverse polarity |
| Battery over voltage | Battery over discharge |
| Battery overheating | Controller overheating |
| Load short circuit | Load overload |

Operation

- Simple menu-driven operation
- Programming by buttons
- Multiple load switch

Certifications

- Compliant with European Standards (CE)
- RoHS compliant
- Manufactured according to ISO 9001 and ISO 14001



Specifications

Model	VS1024AU	VS2024AU	VS3024AU	VS4524AU	VS6024AU
			VS3048AU	VS4548AU	VS6048AU
Nominal system voltage	VS**24 12/24V auto work		VS**48 12/24/36/48V auto work		
Battery input voltage range	VS**24 9～32V		VS**48 9V～64V		
Rated charge/discharge current	10A	20A	30A	45A	60A
Max. PV open circuit voltage	VS**24 50V , VS**48 96V				
Battery type	Sealed(Default) / Gel / Flooded				
Equalize charging voltage*	Sealed:14.6V/ Gel: No/ Flooded:14.8V				
Boost charging voltage*	Sealed:14.4V/ Gel:14.2V/ Flooded:14.6V				
Float charging voltage*	Sealed/Gel/Flooded:13.8V				
Low voltage reconnect voltage*	Sealed/Gel/Flooded:12.6V				
Low voltage disconnect voltage*	Sealed/Gel/Flooded:11.1V				
Self-consumption	≤10mA/12V;≤18mA/24V; ≤14.5mA/36V; ≤17mA				
Temperature compensation coefficient	-3mV/℃/2V（25℃）				
Grounding	Common positive				
USB output	5VDC/2.4A(Total)				
Overall dimension	142x85x41.5mm	160x94.9x49.3mm	181x100.9x59.8mm	194x118.4x63.8mm	214x128.7x72.2mm
Terminals	12AWG(4mm ²)	8AWG(10mm ²)	6AWG(16mm ²)	6AWG(16mm ²)	3AWG(25mm ²)
Net weight	0.22kg	0.35kg	0.55kg	0.76kg	1.02kg
			0.58kg	0.88kg	1.04kg
Enclosure	IP30				
Working environment temperature	-25℃～+55℃(Product can work continuously at full load)				
Humidity range	≤95% (N.C.)				

* Above the parameters are in 12V system at 25℃, twice in 24Vsystem, triple in 36V system and quadruple in 48V system.

*Rated charge/discharge current temp. range is -25 to 55 °C