

# Embedded solar controller





### Main Features

- Products adopt 32-bit high-speed main control chip and large-screen LCD, with adjustable charging and discharging parameters.
- Support multiple battery types such as sealed battery, gel battery, flooded battery, lithium battery and user-defined battery.
- The complete multi-stage PWM charging management can be set to off-load charging for better support of voltage-sensitive loads.
- Dual MOS anti-backflow circuit is equipped with ultra-low heat generation.
- Lithium battery activation function is provided.
- Support the full cutoff current setting.
- Support temperature compensation.
- Support charging voltage line loss compensation so that the control of battery charging voltage is more accurate.
- Support TTL communication of standard Modbus protocol.
- Built-in reverse polarity protection, open circuit protection, high temperature protection, overcurrent protection, short circuit protection (available for set), all of which are self-recovery type without damage to the controller.

### **Electrical wiring diagrams**



#### **POWER CATCHER MPPT TECHNOLOGY**

## **Product size**





Product model : HV2430

Slot size recommendation : 156.58\*116.18\*24mm

### **Product Specification Parameter**

Parameter	Parameter value
Product model	HV2430
No-load loss	< 7mA/12V ; < 10mA/24V
Battery type	USE/FLD/GEL/LI/SLD (default)
System voltage	12V/24V/AUTO(default)
Battery operating voltage range	9V~32V
Rated charging current	30A
Maximum solar panel power	400W/12V ; 800W/24V
Maximum PV open-circuit voltage	55V
Rated load current	30A
Load operating mode	Light control, light control, time control, manual mode (default), debugging mode, normally open
Line loss compensation	Support
Charging cutoff current setting	Support
Charging temperature compensation of lead-acid battery	Support
Temperature protection	Support
Overload/Short-circuit protection	Support
TTL communication	Baud rate 9,600kps (adjustable range 1,200 kps~115,200kps)
Backlit function	Light up when there is keys operation and automatically light off after 20s without keys operation
Protection function	PV overvoltage protection, PV reverse polarity protection, charging overcurrent protection, night reverse charging protection, over-temperature protection, load short-circuit protection, load overload protection, battery overvoltage/over-discharging protection.
Operating ambient temperature range	-35℃~65℃
Protection grade	IP32
Cooling mode	Natural heat dissipation
Dimension	180.26*120.26*19.7mm
Weight	362g

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