



## RUNNER — RS series

- \* 99.5% MPPT efficiency, 97% conversion efficiency.
- \* Exclusively designed heat dissipation channel, quieter and more stable operation.
- \* OLED blue display status information.
- \* Built-in lithium battery activation function.
- \* Support lead-acid, lithium iron phosphate and ternary lithium batteries charging.
- \* Support user-defined, lead-acid and li-ion battery charging.
- \* Complete protection functions to ensure stable operation for battery system.
- \* Support PC, wired instrument, and remote App monitoring.
- \* RJ45 Dual interfaces, support parallel function, integrated management and secondary development.
- \* CE, FCC, RoHS certification.

**Focus on the MPPT Solar Controller  
More Professional, More Reliable**



# Application scene



Home photovoltaic system



Energy storage system



Solar monitoring



Communication base station, etc.

## Runner -RS Technical data

Runner -RS Series	RS48L60	
<b>Product Category</b>		
MPPT efficiency	≥99.5%	
Standby power	1.6W~1.8W	
Heat-Dissipating method	Built-in fan for cooling	
Lead-acid battery system	12V System: 9VDC~15VDC      24V System: 18VDC~30VDC 36V System: 32VDC~40VDC      48V System: 42VDC~60VDC	
Lithium-ion battery system	8VDC~60VDC	
<b>Input Characteristics</b>		
Max.PV input voltage(Voc)	150VDC	
Min.Vmpp Voltage	Battery voltage + 2V	
Start-up charging voltage	Battery voltage + 3V	
Low input voltage protection	Battery voltage + 2V	
Over voltage protection / Recovery	150VDC/145VDC	
Reted PV Power	12V system	840W
	24V system	1680W
	36V system	2520W
	48V system	3360W
<b>Charge Characteristics</b>		
Activation for lithium battery	Standard	
Battery type (default setting gel-sealed lead-acid battery)	Sealed(SEL),Gel(GEL),Flooded(FLD), User-defined(USER),Li-ion(LIT)	
Rated charge current	60A	
Temperature compensation	-3mV/°C/2V	
Charge method	3 stages: CC (Constant current) - CV (Constant voltage) - CF (Floating charge)	
Output voltage stability accuracy	±0.2V	
<b>LOAD Characteristics</b>		
Load voltage	Same as battery voltage	
Rated load current	30A	
Load control mode	On/Off , PV voltage control mode, Dual-time control mode, PV + Time control mode	
Low voltage protection	Settable	
Setting method	PC software / APP / Controller	
<b>Display &amp; Communication</b>		
Display	Blue OLED display	
Communication	Dual RJ45 port / RS485 / support PC software monitoring / support WiFi module for APP cloud monitoring / support centralized parallel monitoring	
<b>Other Parameters</b>		
Protections	Input & output over-volt / low-voltage protection, reverse polarity protection, over-heating protection, battery shedding protection etc.	
Operating ambient temperature	-20°C~+50°C	
Storage temperature	-40°C~+75°C	
IP(Ingress protection)	IP21	
Altitude	0~3000m	
Max. connection size	28mm <sup>2</sup>	
Recommended breaker	≥ 100A	
Net weight/Gross weight (kg)	2 /2.6	
Product size /Packing size (mm)	305x185x90/370x218x98	