



## 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	RS48L40	RS48L50	RS48L60	RS48L80	RS48L100	
<b>Product Category</b>						
MPPT efficiency	≥99.5%					
Standby power	1W~1.8W					
Heat-Dissipating method	Built-in fan for cooling					
Lead-acid battery system	12V System : 9VDC~15VDC		24V System : 18VDC~30VDC			
Lithium-ion battery system	36V System : 32VDC~40VDC		48V System : 42VDC~60VDC			
	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	560W	700W	840W	1120W	1400W
	24V system	1120W	1400W	1680W	2240W	2800W
	36V system	1680W	2100W	2520W	3360W	4200W
	48V system	2240W	2800W	3360W	4480W	5600W
<b>Charge Characteristics</b>						
Activation for lithium battery	Optional					
Battery type (default setting gel-sealed lead-acid battery)	Sealed(SEL),Gel(GEL),Flooded(FLD),User-defined(USER),Li-ion(LIT)					
Rated charge current	40A	50A	60A	80A	100A	
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			50A		
Load control mode	On/Off , PV voltage control mode, Dual-time control mode, PV + Time control mode					
Low voltage protection	Can be set					
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	≥63A	≥63A	≥100A	≥120A	≥150A	
Net weight/Gross weight (kg)	2 / 2.6			5 / 6.2		
Product size /Packing size (mm)	305x185x90/370x218x98			380x210x80/490x350x195		