



RUNNER Series

- * MPPT efficiency 99.5%, conversion efficiency 97%
- * Exclusively designed heat dissipation channel, quieter
- * HD LCD color display
- * Suitable for Li-ion battery system
- * Lithium battery activates the wake-up function
- * Complete protection functions for lithium battery and lead-acid battery system
- * Support remote monitoring of PC, wired instrument, wireless module APP
- * Dual RJ45 interfaces, parallel, integrated management and secondary development
- * CE, FCC, Rohs certification

A large array of solar panels installed in a grassy field under a clear sky.

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

Application scene



Home photovoltaic system



Energy storage system



Solar engineering



Communication base station, etc.

Runner Technical data

Runner Series		R48L40	R48L50	R48L60	R48L80	R48L100
Product Category						
MPPT efficiency		≥99.5%				
Standby power		0.5W~1.2W			1W~1.6W	
Heat-Dissipating method		Fan-cooling				
Battery system		12V/24V/36V/48V auto (Lead-acid batteries)				
Settable lithium-ion battery system		8VDC~60VDC(Standard model) , ≤60VDC (Optional lithium battery activation)				
Input Characteristics						
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	520W	650W	780W	1040W	1300W
	24V system	1040W	1300W	1560W	2080W	2600W
	36V system	1560W	1950W	2340W	3120W	3900W
	48V system	2080W	2600W	3120W	4160W	5200W
	Li-ion	504W~2016W	630W~2520W	756W~3024W	1008W~4032w	1260W~5040W
Charge Characteristics						
Activation for lithium battery		Optional				
Battery types		Sealed(SEL),Gel(GEL),Flooded(FLD),User-defined(USER),Li-ion(LIT)				
Rated charge current		40A	50A	60	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				
LOAD Characteristics						
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		10.5V (default), 11V (restored), settable				
Setting method		PC software / APP / Controller				
Display & Communication						
Display		High-definition LCD segment code backlight display				
Communication		Dual RJ45 port / RS485 / support PC software monitoring / support WiFi module for APP cloud monitoring / support centralized parallel monitoring				
Other Parameters						
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		28mm²			50mm²	
Recommended breaker		≥ 63A	≥ 80A		≥ 100A	≥ 120A
Net Weight/Gross Weight (kg)		2.15 / 3.05			5 / 6.15	
Product size /Packing size (mm)		305×185×72 / 420×275×150			380×210×80 / 490×350×195	