

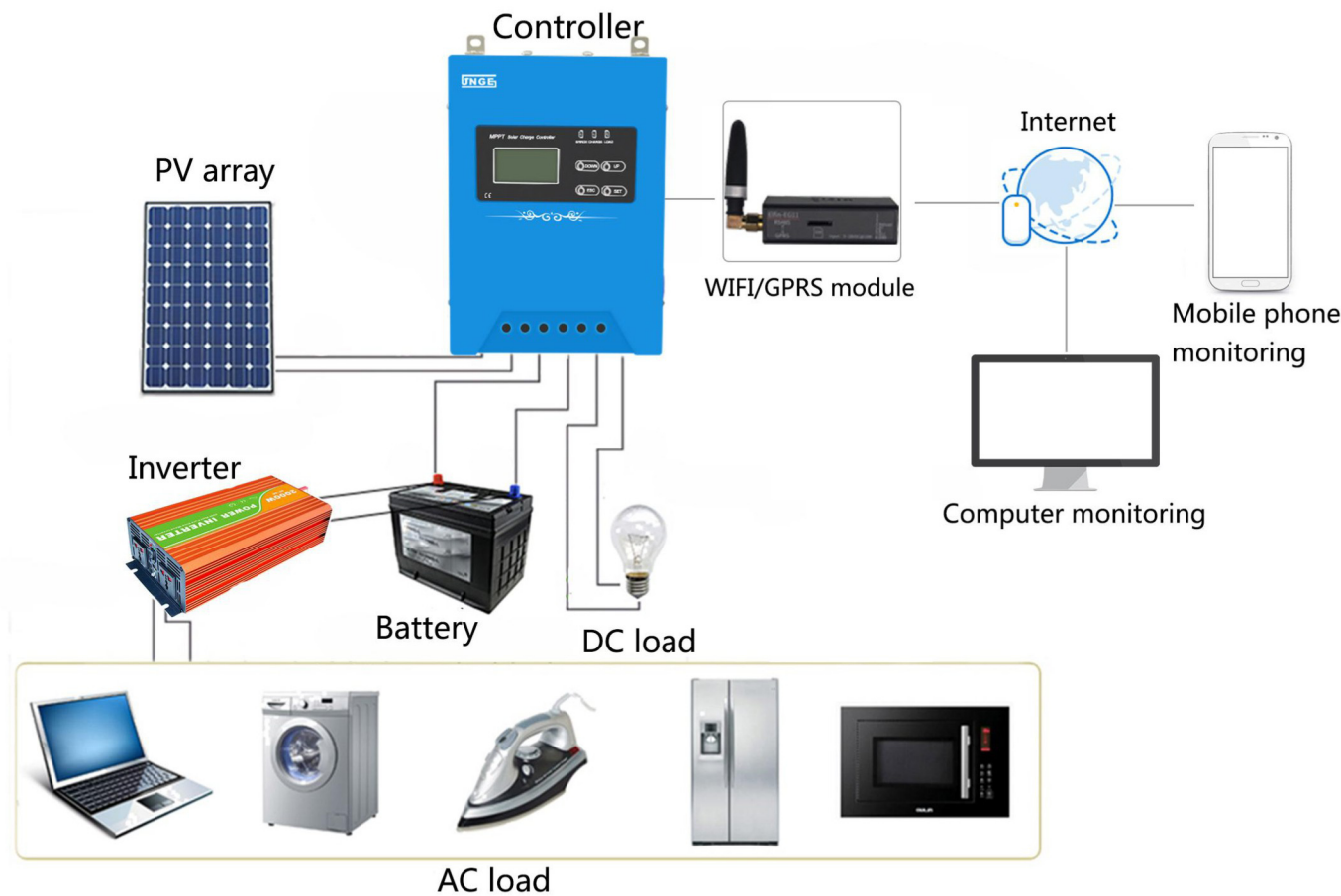
## 6. JN-MPPT-MINI/AL/BL/CL Buck Series MPPT Solar Charge Controller

### Product Features:

1. Advanced multi-phase synchronous rectification technology also has high conversion efficiency in low power charging environment.
2. Has an ultra-wide PV array operating voltage range.
3. Advanced MPPT maximum power point tracking technology, the tracking efficiency is not less than 99.5%, compared with the ordinary PWM algorithm, the efficiency is increased by 15 to 20%.
4. Using high-quality imported components and advanced power conversion circuit, the maximum conversion efficiency can reach over 98%, the full load efficiency can reach 97%, and a variety of tracking algorithms can be combined to quickly track the maximum power point.
5. Three-stage charging method: MPPT-lifting charging-floating.
6. 12V/24V/48V battery system automatic identification function.
7. RS485 communication can provide communication protocol to facilitate unified management and secondary development for customers.
8. The controller running parameters can be viewed and set through the PC host computer and mobile phone APP, For details, refer to the host computer and APP manual (optional).
9. With battery temperature compensation.
10. comprehensive protection functions: overcharge, over discharge, over temperature, overload, reverse connection and so on.



### System application diagram



### Technical Parameters:

parameter name	Parameter value (and adjustable range)															
model	JN-MPPT-MINI			JN-MPPT-AL			JN-MPPT-BL			JN-MPPT-CL						
Current rating (A)	10	20	30	30	40	50	30	40	50	60	70	50	60	80	100	120
Maximum charging current (A)	10	20	30	30	40	50	30	40	50	60	70	50	60	80	100	120
PV maximum input power (12V) (W)	120	240	360	360	480	600	360	480	600	720	840	600	720	960	1200	1440
PV maximum input power (24V) (W)	240	480	720	720	960	1200	720	960	1200	1440	1680	1220	1440	1920	2400	2880
PV maximum input power (48V) (W)	-	-	-	1440	1920	2400	1440	1920	2400	2880	3360	2400	2880	3840	4800	5760
PV maximum input power (96V) (W)	-	-	-	-	-	-	-	-	-	-	-	4800	5760	7680	9600	-
Output maximum	7	14	21	21	28	35	21	28	35	42	49	-	-	-	-	-
PV panel open circuit input voltage range (V)	20V ~ 100V (12Vsystem)			20V ~ 100V(12Vsystem)						20V ~ 100V(12Vsystem)						
				40V ~ 145V(24Vsystem)						40V ~ 145V(24Vsystem)						
	40V ~ 100V (24Vsystem)			80V ~ 145V(48Vsystem)						160V ~ 240V(48Vsystem)						
										160V ~ 240V(96Vsystem)						
System identification	12V battery system						DC9V-DC16V									
	24V battery system						DC18V-DC32V									
	48V battery system						DC42V-DC60V									
	96V/battery system						96V is a stand-alone system									
MPPT efficiency	> 99.5%															
Conversion efficiency	> 98%															
Operating mode	The default is the household mode 24H															
Working temperature	-20°C ~ 50°C															
Storage temperature	-30°C ~ 70°C															
Humidity (°C)	10% to 90% without condensation															
Protection grade	IP30															
Weight (kg)	1.25Kg			1.5kg			2.3kg			3.6kg						
size L*D*H(mm)	156*134*81			186*146*81			240*170*97			340*208*95						