

MODEL:WP20

Rated Current	10A	1 5 A	20A	Over Current Protect	1.25 times rated current 10S
Rated Voltage	12V/24V Auto			Charge/Discharge Voltage Drop	≤0.3V
Solar Input	≤50V			USB Power(optional)	5V/1A Max
Float Voltage	13.8V/27.6V			Charging mode	3step, PWM charge
LVD	10.7V/21.4V			Specification of cable	AWG 5# (6mm ²)
LVR	12.6V/25.2V			Working Temperature	-20 °C~50°C
Boost Voltage	b01:14.4V/ 28.8V	Duration 2 hours		Storage temperature	-30 °C~70°C
	b02:14.2V/ 28.4V			Humidity	≤90%, no condensation
	b03:14.6V/ 29.2V			Diameter of mounting hole	150mm×64mm --Φ5
HVD	15.5V/31.0V			Dimension	166mm×88mm×38mm
No Load Loss	≤13mA			Weight	270g

Model		WP30D/WP50D	WP3048/WP5048
Solar Input	Maximum input voltage	≤50V	≤100V
	Rated input current	30A/50A	30A/50A
	Charge loop voltage drop	≤0.2V	≤0.35V
Battery	System voltage	12V/24V Auto	48V
	No load loss	≤13mA(Backlight off)	≤18mA(Backlight off)
	Battery type	Sealed, GEL, Flooded, User	
	Charging mode	4 stage(Bulk, Absorption, Float, Equalizing), PWM	
	Float voltage	13.7V(13V~15V)×1/×2/×4	
	Absorption voltage	14.4V(13V~15V)×1/×2/×4	
	Equalizing voltage	15.1V(13V~15.5V)×1/×2/×4	
	Temperature compensation	-4mV/Cell/°C	
Load	Rated load current	30A	30A
	Discharge loop drop	≤0.10V	≤0.12V
	Low voltage disconnect	10.7V(10V~14V)×1/×2/×4	
	Low voltage reconnect	12.6V(10V~14V)×1/×2/×4	
	Overvoltage disconnect	16.5V×1/×2/×4(reconnect ,1V lower)	
Related	Man-machine interface	LCD with white backlight, 3 red silica gel buttons	
	Max wire size	16mm ² (AWG 5#)	
	Working temperature	-20°C ~ +55°C	
	Storage temperature	-30°C ~ +80°C	
	Working humidity	10% ~ 90%, no condensation	
	Dimension	187 mm x 98.5 mm x 49.5 mm	
	Weight	400 g	420g
	Case Protection	IP30	

Model	CM1012	Low voltage protection	10.7V
Rated current	10A,12A,15A	Low reconnecting voltage	12.6V
System voltage	12V	Temperature compensation	-4mv/°C/2V (hoisting, floating charging compensation)
no load loss	≤12 mA (not including USB)	Charging mode	PWM
charging (Discharging) circuit voltage drop	<0.2V(<0.15V)	Overloading and short circuit protection	1.25 times than rated current, protect the load within 60 seconds. 2.5 times or over, starting the short circuit protection
Hoisting voltage	14.4V (lasting time: 10min)		
Float charging voltage	13.7V	installing holes	Φ3.5—55mm*122mm
Environmental temperature	-20°C—50°C	installing cables diameter	≤16mm ²

MODEL	CM2024Z	MODEL	CM2024Z
system voltage	12V/24V	load loss	<13 mA
open circuit voltage	<50V	voltage drop of charging circuit	<0.2V
Rated charging and discharging current no	10a,15A ,20A	voltage drop of discharging circuit	<0.1V
elevated voltage	14.4V/28.8V	temperature compensation	-4mv/cell/°C
Float charging voltage	13.8V/27.6V	cable diameter	<6mm ²
low voltage disconnecting	11.2V/22.4V	installing size	Φ4mm—159mm*68mm
low voltage recovery	12.6V/25.2V	dimension	168mm*88mm*34mm
charging mode	PWM	storage temperature	-35°C — 70°C
output overload and short-circuit protection	output >23A and 60s or	working temperature	-25°C — 60°C
	>29A and 15s overload protection or	humidity requirement	≤90%
	>40A short-circuit	weight	275g

mode parameter	CM30D		mode parameter	CM30D	
Rated Current	30A		Self-consumption	≤25mA	
System Voltage	12V/24V auto		Charge/Discharge Voltage Drop	<0.3V/<0.2V	
solar panel	<50V				
Float Voltage	13.8V/27.6V		USB output	5V/1A	
LVD	10.7V/21.4V		Installation cable area	≤7# AWG (≤16mm ²)	
LVR	12.6V/25.2V		Working Temperature	-20°C~50°C	
Boost Voltage	b01 Sealed	14.4V/28.8V	Dura- tion 2hours	Storage temperature	-30°C~70°C
	b02 GEL	14.2V/28.4V		Humidity	10%-90%, NC
	b03 Flooded	14.6V/29.2V		Size	95mm×181 mm×42 mm
HVD	15.5V/31.0V		Mounting hole spacing	64 mm×150 mm -Φ5	
HRD	15.0/30.0V		Weight	230g	

Type Parameters	CM20D		Type Parameters	CM20D
Rated current	10A	20A	Charge and discharge voltage drop	<0.2V <0.1V
Rated voltage	12V/24V Automatic Identification		Charging mode	PWM mode
Voltage of solar panel	≤50V		Temperature compensation	-4mV/Cell/ °C to be customized)
Floating charge	13.8V/27.6V		Specification of the cables	≤5# AWG (6mm ²)
Under-voltage protection	10.7V/21.4V		Working temperature	-20 °C~60°C
Under-voltage recovery	12.6V/25.2V		Storage temperature	-30 °C~70°C
Boost voltage	b01 Sealed 14.4V/28.8V	(Duration : 2hours)	Temperature requested	≤90%,No condensation
	b02 Gel14.2V/28.4V		Dimension	88 mm×160 mm×37 mm
	b03 Flooded 14.6V/29.2V		diameter of mounting hole	64 mm×150 mm --Φ5
Open circuit losses	≤13mA		Weight	230g
Remark				

Model Data	CM5024Z	CM5048	Model Data	CM5024Z	CM5048
Rated current	40A,50A	40A, 50A	Installation cable area	>3# AWG (<25mm ²)	
Rated voltage	12V/24V	48V	Operating temperature	-20 °C~ 50°C	
Maximum voltage of solar panel	≤50V	≤100V	Storage temperature	-30 °C~ 70°C	
Float voltage	13.7V/27.4V	54.8V	Humidity Requirement	≤90%, No Condensation	
Low Voltage Disconnection	10.7V/21.4V	42.8V	Size	130mm×188mm×62mm	
Low Voltage Reconnection	12.6V/25.2V	50.4V	Mounting hole spacing	98 mm×178 mm --Φ5	
No load loss	<30mA		Weight	590g	
Loop voltage drop	≤200mV				
Charging mode	PWM Mode				
Temperature compensation	-4mV/Cell/°C				
Notes	Model suffix " Z " represent automatic identify system voltage level, " T " represent controller with remote monitoring.				

Model Data	CM6024Z	CM6048	Model Data	CM6024Z	CM6048
Rated current	60A		Installation cable area	>3# AWG (<25mm ²)	
Rated voltage	12V/24V	48V	Operating Temperature	-20 °C~50°C	
Maximum voltage of solar panel	≤50V	≤100V	Storage temperature	-30 °C~70°C	
Float voltage	13.7V/27.4V	54.8V	Humidity Requirement	≤90%, No Condensation	
Low Voltage Disconnection	10.7V/21.4V	42.8V	Size	130mm×188mm×62mm	
Low Voltage Reconnection	12.6V/25.2V	50.4V	Mounting hole spacing	98 mm×178 mm --Φ5	
No load loss	<30mA		Weight	590g	
Loop voltage drop	≤200mV				
Charging mode	PWM				
Temperature compensation	-4mV/Cell/°C				
Notes	Model suffix " Z " represent automatic identify system voltage level, " T " represent controller with remote monitoring.				

Model Data	CM8024Z	CM8048	Model	CM8024Z	CM8048
Rated current	80A	80A	Cooling style	Active Cooling	
Rated voltage	12V/24V	48V	Ambient temperature range	-20C~45C	
Maximum voltage of solar panel	≤50V	≤100V	Storage temperature	-30C~70C	
Float voltage	13.8V(12.8V~14.2V)×1/×2/×4		Humidity Requirement	≤90%, No Condensation	
Absorb voltage	14.4V(13.6V~15.2V)×1/×2/×4		Size	193.5mm*188mm*89mm	193.5mm*188mm*96mm
Low Voltage Disconnection	11.5V(10.5V~12.0V) ×1/×2/×4		Mounting hole spacing	106mm*178mm --Φ5	
Low Voltage Reconnection	12.6V(11.5V~13.0V) ×1/×2/×4		Maximum wire size	≤25mm ²	
No load loss	<26mA	<22mA	Weight	1.09kg	1.3kg
Charge Voltage Drop	≤300mV	≤200mV			
Discharge Voltage Drop	≤100mV	≤150mV			
Charging mode	PWM mode				
Temperature compensation	-4mV/Cell/°C				
Notes	Model suffix " Z " represent automatic identify system voltage level, " T " represent controller with remote monitoring.				

technical parameters			
model		eMPPT3024Z	eMPPT3048
input	solar panel input voltage scope	≤70V	≤130V
	maximum power point voltage tracking scope	12V~70V (12V) 24V~70V (24V)	48V~130V
	solar panel input route	1 route	1 route
output	rated working voltage	12V/24V auto switch	48V
	maximum charging current	30A	30A
	no load loss	≤45mA	≤45mA
	charging mode	(Bulk Absorption Float)	
	float charging voltage	27.6V (adjustable)	55.2V (adjustable)
	temperature compensation for float charging voltage	-4mV/cell/°C	-4mV/cell/°C
	absorption charging voltage	28.8V (adjustable)	57.6V (adjustable)
	temperature scope	-20°C~+70°C	-20°C~+70°C
others	protection functions	① battery reverse connection function ② battery reverse discharging function ③ solar panel reverse connection function ④ solar panel input over voltage protection ⑤ radiator overheat protection ⑥ input over power deviated from maximum power point	
	cooling way	thermostat active cooling	
	optional function	(RS485 or RS232) remote controlling function	
	working temperature scope	-10°C~+50°C	
	working altitude	≤3000m	
	working humidity scope	0~90%, no condensation	
	volume	380mm*150mm*100mm	
	weight	2.5 Kg	2.6 Kg
storage temperature scope	-30°C~+80°C		

MODEL		eMPPT6024Z	eMPPT6048
Input	Input Voltage Range of Solar Panels	≤70V	≤130V
	Maximum Power Point Tracking Range	12V~70V (12V) 24V~70V (24V)	48V~130V
	Input Route	2 channel	2 channel
Output	Nominal System Voltage	12V/24V Auto	48V
	Maximum Charging Current	60A	60A
	Self Consumption	≤50mA	≤50mA
	Charging Stages	Bulk、Absorption、Float	
	Float Charging Voltage	13.8V(12.8V~14.2V) ×1/×2/×4	
	Absorption Charging Voltage	14.4V(13.6V~15.2V) ×1/×2/×4	
	Temperature Compensation	-4mV/Cell/°C	
Others	Maximum Efficiency	97%	
	HMI	LCD and Button	
	Cooling Mode	Temperature-controlled Active Cooling	
	Connecting Way	M6 and M8 Terminals	
	Ambient Temperature Range	-10°C~+50°C	
	Humidity	0~90%, No condensation	
	Dimensions	380mm*283mm*100mm	
	Product Weight	5.7Kg	5.9Kg
	Storage Temperature	-30°C~+80°C	
Optional Function	Remote Monitoring (RS485 or RS232, DB9 Port)		