

# XTRA POWER MPPT

## Solar Charge Controller



### CHARACTERISTIC:

1. MPPT efficiency  $\geq 99.5\%$
2. Built in Bluetooth
3. Suitable for all kinds of Batteries
4. Support remote monitoring of PC and APP
5. Support Dual RS485 communications
6. Intelligent air cooling
7. Support Parallel Connection
8. Multiple protections for overvoltage, overcurrent etc.

### MILKYWAY Series

### Applicable scenarios



Photovoltaic power station



Project



Photovoltaic energy storage system



Intelligent Microgrid

### MILKYWAY Series

MILKYWAY Series	GS96L60	GS96L80	GS96L100
<b>Product Category</b>	Solar Charge Controller with Maximum Power Point Tracking (MPPT)		
<b>Controller type</b>	Solar Charge Controller with Maximum Power Point Tracking (MPPT)		
<b>Maximum Power Point Tracking Efficiency</b>	$\geq 99.5\%$		
<b>Cooling method</b>	forced air cooling		
<b>Lead-acid battery system voltage range</b>	72V~120V		
<b>Lithium-ion battery system</b>	96V		
<b>Input characteristics</b>			
<b>Maximum input voltage(Voc.Max)</b>	430VDC		
<b>Minimum MPPT voltage (Vmppt.min)</b>	Vbat + 10V		
<b>start charging voltage</b>	Vbat + 20V		
<b>Input overvoltage protection/recovery voltage</b>	430VDC/425VDC		
<b>Rated input power(W)</b>	6240	8320	10400
<b>Charging characteristics</b>			
<b>Applicable battery type</b>	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries		
<b>Rated charging current</b>	60A	80A	100A
<b>charging method</b>	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)		
<b>Load characteristics</b>			
<b>load voltage</b>	Same as battery voltage		
<b>Rated load current</b>	60A	80A	100A
<b>load control mode</b>	On/Off, Light Control Mode, Dual Time Period Timing Control Mode, Fixed Time Light Control Mode		
<b>Display &amp; Communication</b>			
<b>Display</b>	Working status indicator or MH-M80 meter		
<b>communication</b>	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)		
<b>protocol</b>	Standard Modbus protocol & non-standard proprietary protocol		
<b>Other features</b>			
<b>How to set</b>	PC softwar / APP /Meter		
<b>Protections</b>	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection		
<b>Operating ambient temperature</b>	-20°C~+50°C		
<b>Storage temperature</b>	-40°C~+75°C		
<b>IP(Ingress protection)</b>	IP21		
<b>Recommended breaker for battery</b>	$\geq 80A$	$\geq 100A$	$\geq 125A$
<b>net weight</b>	17kg		
<b>Gross weight</b>	23.5kg		
<b>Product Size</b>	313*540*187MM		
<b>Package dimensions</b>	635*430*295MM( wooden box)		



## Applicable scenarios



Photovoltaic power station



Project



Photovoltaic energy storage system



Intelligent Microgrid

## MILKYWAY Series

Product item	GS120L60	GS120L80	GS120L100
<b>Product Category</b>			
Controller type	Solar Charge Controller with Maximum Power Point Tracking (MPPT)		
Maximum Power Point Tracking Efficiency	≥99.5%		
Cooling method	forced air cooling		
Lead-acid battery system voltage range	90V~150V		
Lithium-ion battery system	120V		
<b>Input characteristics</b>			
Maximum input voltage (Voc.Max)	430VDC		
Minimum MPPT voltage (Vmppt.min)	Vbat + 10V		
start charging voltage	Vbat + 20V		
Input overvoltage protection/recovery voltage	430VDC/425VDC		
Rated input power(W)	7800	10400	13000
<b>Charging characteristics</b>			
Applicable battery type	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries		
Rated charging current	60A	80A	100A
charging method	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)		
<b>Load characteristics</b>			
load voltage	Same as battery voltage		
Rated load current	60A	80A	100A
load control mode	On/Off, Light Control Mode, Dual Time Period Timing Control Mode, Fixed Time Light Control Mode		
<b>Display &amp; Communication</b>			
Display	Working status indicator or MH-M80 meter		
communication	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)		
protocol	Standard Modbus protocol & non-standard proprietary protocol		
<b>Other features</b>			
How to set	PC softwar / APP /Meter		
Protections	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection		
Operating ambient temperature	-20°C~+50°C		
Storage temperature	-40°C~+75°C		
IP(Ingress protection)	IP21		
Recommended breaker for battery	≥80A	≥100A	≥125A
net weight	17kg		
Gross weight	23.5kg		
Product Size	313*540*187MM		
Package dimensions	635*430*295MM( wooden box)		

## Applicable scenarios



Photovoltaic power station



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Photovoltaic energy storage system



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## MILKYWAY Series

Product item	GS144L60	GS144L80	GS180L60	GS180L80
<b>Product Category</b>				
Controller type	Solar Charge Controller with Maximum Power Point Tracking (MPPT)			
Maximum Power Point Tracking Efficiency	≥99.5%			
Cooling method	forced air cooling			
Lead-acid battery system voltage range	108V~180V		135V~225V	
Lithium-ion battery system	144V		180V	
<b>Input characteristics</b>				
Maximum input voltage(Voc.Max)	430VDC			
Minimum MPPT voltage (Vmppt.min)	Vbat + 10V			
start charging voltage	Vbat + 20V			
Input overvoltage protection/recovery voltage	430VDC/425VDC			
Rated input power(W)	9360	12480	11700	15600
<b>Charging characteristics</b>				
Applicable battery type	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries			
Rated charging current	60A	80A	60A	80A
charging method	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)			
<b>Load characteristics</b>				
load voltage	Same as battery voltage			
Rated load current	60A	80A	60A	80A
load control mode	On/Off, Light Control Mode, Dual Time Period Timing Control Mode, Fixed Time Light Control Mode			
<b>Display &amp; Communication</b>				
Display	Working status indicator or MH-M80 meter			
communication	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)			
protocol	Standard Modbus protocol & non-standard proprietary protocol			
<b>Other features</b>				
How to set	PC softwar / APP /Meter			
Protections	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection			
Operating ambient temperature	-20°C~+50°C			
Storage temperature	-40°C~+75°C			
IP(Ingress protection)	IP21			
Recommended breaker for battery	≥80A	≥100A	≥80A	≥100A
net weight	17kg			
Gross weight	23.5kg			
Product Size	313*540*187MM			
Package dimensions	635*430*295MM( wooden box)			



## Applicable scenarios



Photovoltaic power station



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Photovoltaic energy storage system



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## MILKYWAY Series

Product item	GS192L50	GS192L60	GS216L50	GS216L60	GS240L50	GS240L60
<b>Product Category</b>						
Controller type	Solar Charge Controller with Maximum Power Point Tracking (MPPT)					
Maximum Power Point Tracking Efficiency	≥99.5%					
Cooling method	forced air cooling					
Lead-acid battery system voltage range	144V~240V		162V~270V		180V~300V	
Lithium-ion battery system	192V		216V		240V	
<b>Input characteristics</b>						
Maximum input voltage(Voc.Max)	430VDC					
Minimum MPPT voltage (Vmppt.min)	Vbat + 10V					
start charging voltage	Vbat + 20V					
Input overvoltage protection/recovery voltage	430VDC/425VDC					
Rated input power(W)	10400	12480	11700	14040	13000	15600
<b>Charging characteristics</b>						
Applicable battery type	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries					
Rated charging current	50A	60A	50A	60A	50A	60A
charging method	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)					
<b>Load characteristics</b>						
load voltage	Same as battery voltage					
Rated load current	50A	60A	50A	60A	50A	60A
load control mode	On/Off, Light Control Mode, Dual Time Period Timing Control Mode, Fixed Time Light Control Mode					
<b>Display &amp; Communication</b>						
Display	Working status indicator or MH-M80 meter					
communication	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)					
protocol	Standard Modbus protocol & non-standard proprietary protocol					
<b>Other features</b>						
How to set	PC softwar / APP /Meter					
Protections	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection					
Operating ambient temperature	-20°C~+50°C					
Storage temperature	-40°C~+75°C					
IP(Ingress protection)	IP21					
Recommended breaker for battery	≥80A					
net weight	17kg					
Gross weight	23.5kg					
Product Size	313*540*187MM					
Package dimensions	635*430*295MM( wooden box)					

## Applicable scenarios



Photovoltaic power station



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Photovoltaic energy storage system



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## MILKYWAY Series

Product item	GS192H100	GS216H80	GS216H100	GS240H80	GS240H100
<b>Product Category</b>					
Controller type	Solar Charge Controller with Maximum Power Point Tracking (MPPT)				
Maximum Power Point Tracking Efficiency	99.50%				
Cooling method	forced air cooling				
Lead-acid battery system voltage range	144V~240V		162V~270V		180V~300V
Lithium-ion battery system	192V		216V		240V
<b>Input characteristics</b>					
Maximum input voltage(Voc.Max)	660VDC				
Minimum MPPT voltage (Vmppt.min)	Vbat + 10V				
start charging voltage	Vbat + 20V				
Input overvoltage protection/recovery voltage	660VDC/655VDC				
Rated input power(W)	20800	18720	23400	20800	26000
<b>Charging characteristics</b>					
Applicable battery type	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries				
Rated charging current	100A	80A	100A	80A	100A
charging method	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)				
<b>Load characteristics</b>					
load voltage	Same as battery voltage				
Rated load current	Measurable range: 0~100A				
load control mode	Normally open				
<b>Display &amp; Communication</b>					
Display	Working status indicator or MH-M80 meter				
communication	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)				
protocol	Standard Modbus protocol & non-standard proprietary protocol				
<b>Other features</b>					
How to set	PC softwar / APP /Meter				
Protections	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection				
Operating ambient temperature	-20°C~+50°C				
Storage temperature	-40°C~+75°C				
IP(Ingress protection)	IP21				
Recommended breaker for battery	≥125A	≥100A	≥125A	≥100A	≥125A
net weight	23kg				
Gross weight	30kg				
Product Size	340*522*222MM				
Package dimensions	620*450*335MM( wooden box)				



## Applicable scenarios



Photovoltaic power station



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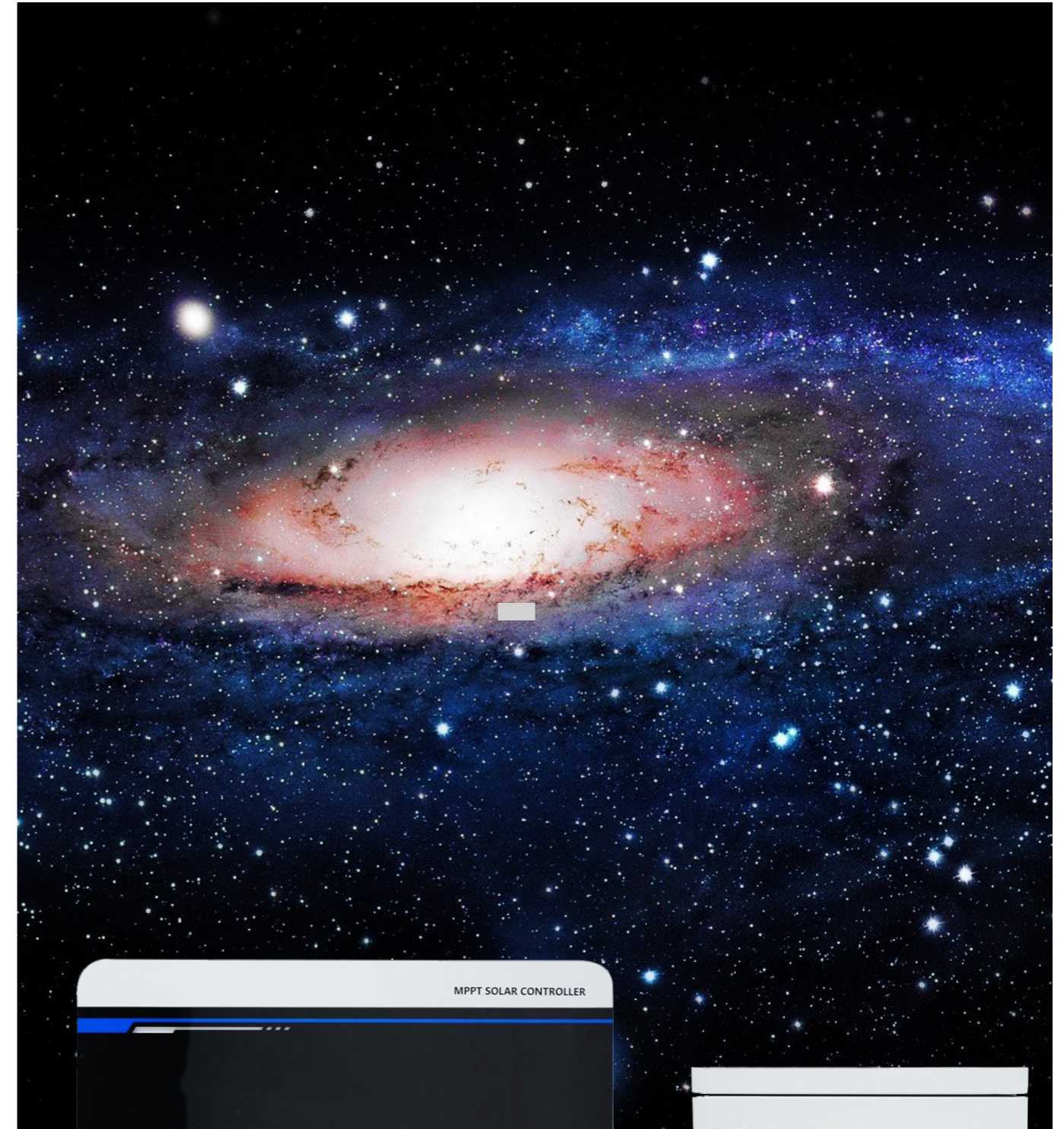
Photovoltaic energy storage system



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## MILKYWAY Series

Product item	GS360H80	GS384H80	GS384H100	GS480H60	GS480H80
<b>Product Category</b>					
Controller type	Solar Charge Controller with Maximum Power Point Tracking (MPPT)				
Maximum Power Point Tracking Efficiency	99.50%				
Cooling method	forced air cooling				
Lead-acid battery system voltage range	270V~450V	288V~480V		360V~600V	
Lithium-ion battery system	360V	384V		480V	
<b>Input characteristics</b>					
Maximum input voltage (Voc.Max)	850VDC				
Minimum MPPT voltage (Vmppt.min)	Vbat + 10V				
start charging voltage	Vbat + 20V				
Input overvoltage protection/recovery voltage	850VDC/845VDC				
Rated input power(W)	31200	33280	41600	31200	41600
<b>Charging characteristics</b>					
Applicable battery type	Common lead-acid batteries (SEL, GEL, FLD) and custom lead-acid batteries, custom lithium iron phosphate, ternary lithium or other lithium-ion batteries				
Rated charging current	80A	80A	100A	60A	80A
charging method	Lead Acid Battery: CC (Quick Charge)-CV (Constant Voltage Charge)-CF (Float Charge) Li-Ion Battery: CC (Quick Charge)-CV (Constant Voltage Charge)				
<b>Load characteristics</b>					
load voltage	Same as battery voltage				
Rated load current	Measurable range: 0~100A				
load control mode	Normally open				
<b>Display &amp; Communication</b>					
Display	Working status indicator or MH-M80 meter				
communication	Dual RJ45 interface/RS485 bus/host computer software/built-in Bluetooth/WIFI module mobile phone cloud monitoring (optional)				
protocol	Standard Modbus protocol & non-standard proprietary protocol				
<b>Other features</b>					
How to set	PC softwar / APP /Meter				
Protections	Input / output overvoltage and undervoltage protection / input reverse connection protection / battery anti reverse connection protection / overheating protection / overcharge protection				
Operating ambient temperature	-20°C~+50°C				
Storage temperature	-40°C~+75°C				
IP(Ingress protection)	IP21				
Recommended breaker for battery	≥100A	≥100A	≥125A	≥80A	≥100A
net weight	--				
Gross weight	--				
Product Size	340*585*227MM				
Package dimensions	680*450*335MM( wooden box)				



## MILKYWAY Series