

All lithium batteries on the market should be charged with a special charger for lithium batteries. If not, your battery will not be fully charged, or it will be damaged. The WG-12BC900M Bidirectional Battery Charger 12V 900W has optimized this charger for use with LiFePO4 and LiMn2O4. DC input voltage provides 10-50VDC, and rated output voltage is DC 12V 900W. Intelligent stages charging with CC, CV. For 12V LiFePO4, CC value is 14.6V, and 12V LiMn2O4 (3 series) is 12.6V. After reaching the CC value, the charger will down the charge current to 10% charge current, there will have no float charging, it is professional for lithium batteries charge.



Key Features

- ※ Design meeting by CE, RoHS, ISO9001-2015
- ※ Special design for LiFePO4 and LiMn2O4 batteries CC/CV Value.
- ※ Full charge current design and efficiency up to 96%
- ※ Provide OV, OT, OC(@CC model), and short circuit protection.
- ※ DC output terminals diversify, suit for any battery system.
- ※ Advanced switching mode power supply technology.
- ※ Waterproof, Dust-proof, Shockproof design suit for much environment.
- ※ RS485 protocol (optional): control of current and voltage.
- ※ Provide LED to show charging state, Compact and light weight, natural cooling.
- ※ 2 years limited warranty.

Model Naming Method

<p>WG-12BC900M</p>	<p>WG: "szwengao" company name</p> <p>12 : Battery voltage</p> <p>BC : Bidirectional Charging</p> <p>900: Charging power (watt)</p> <p>M : Type of shell</p>
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Specifications		
Model No.	WG-12BC900M	
Battery type	Lifepo4	
Max. output DC voltage	14.6V±0.2V	
Output current	60A±3%	
DC input rated voltage	12V/24V/36VDC (battery)	
DC input voltage range	10-50VDC	
DC input peak voltage	60VDC	
Input lowvoltage shutdown	9.5VDC (accept custom), flashing @ red light	
Input lowvoltage recovery	10.5VDC (accept custom)	
Input fuse type	100A (Unit input postive has built-in fuses)	
Max. input current	95A(Vin=10V, Iout=60A)	
CC (constant current)	≤14.6V, 900W	
CV (constant voltage)	14.6V, 900W↓	
No load current	140mA (Vin=12VDC)	
RS485 remote output(OFF)	20mA (Vin=12VDC)	
Ignition shutdown(ACC OFF)	70uA (Vin=12VDC)	
Battery leakage current	0.55mA	
Anti backflow function	YES	
Bidirectional Charging	YES	
Float charging	NO	
Ignition wire (ACC wire)	Optional (10-50VDC ON, 0-8VDC OFF)	
Power efficiency	96% @ (Vin=12VDC)	
Ripple & Noise	220-600mVp-p	
Working temperature	-40℃ ~ +55℃	
Waterproof level	IP65	
Dimension	140*120*42.5mm (5.51*4.72*1.67 inch)	
Weight	≤1.3kg	
Input cable type(suggest)	6AWG	If the wire length is greater than 1m, it is recommended to use a thicker wire diameter.
Output cable type(suggest)	8AWG	
Cooling	Natural	
Packing	Box	
LED light display	RED: battery is charging; GREEN: fully charged.	

▴RS485 Communication Function (optional)

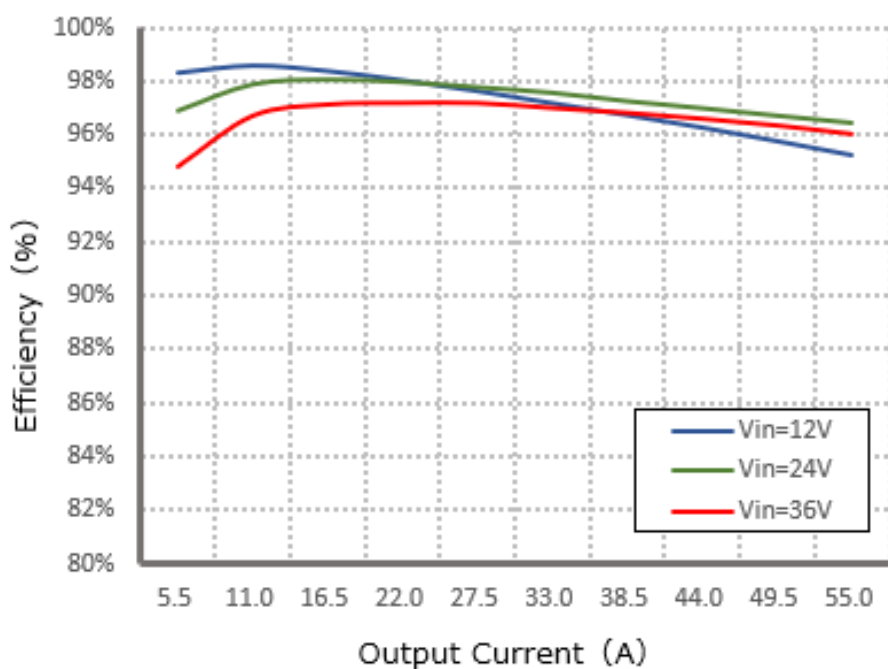
- 1, Input undervoltage and overvoltage protection point and recovery point can be set (customized for different application scenarios)
- 2, Adjustable output voltage 10-50V (customized charging curve for different types and capacities of batteries).
- 3, Adjustable output current 1A-60A (customized charging curve for different types and capacities of batteries).
- 4, Battery full state indicator current conversion point 1-5A can be set (customized for different capacity batteries).
- 5, RS485 remote output ON/OFF function (battery full stop charging).
- 6, Output voltage and current calibration function (ensures batch consistency).
- 7, Real-time reporting of input and output operating parameters(Protection alarms).
- 8, All settable parameters have a power-down storage function.

▴Function & Safety

Short circuit protection	YES (Automatic recovery)		
Over voltage protection	YES (Automatic recovery)		
Over current protection	YES (Automatic recovery)		
Over temperature protection	YES(Automatic derating of output charging power for high temperatures, refer to derating curve)		
Anti electric strength	Input to shell	≥ 500V	Leakage current ≤ 1mA, 1min, no breakdown, no arcing
	Output to shell		
Insulation resistance	Input to Shell	≥10MΩ	Test voltage = 500V
	Output to Shell		
MTBF	≥ 200,000H	Vin=12V/24V/36V	

▴Characteristic Curves

Efficiency



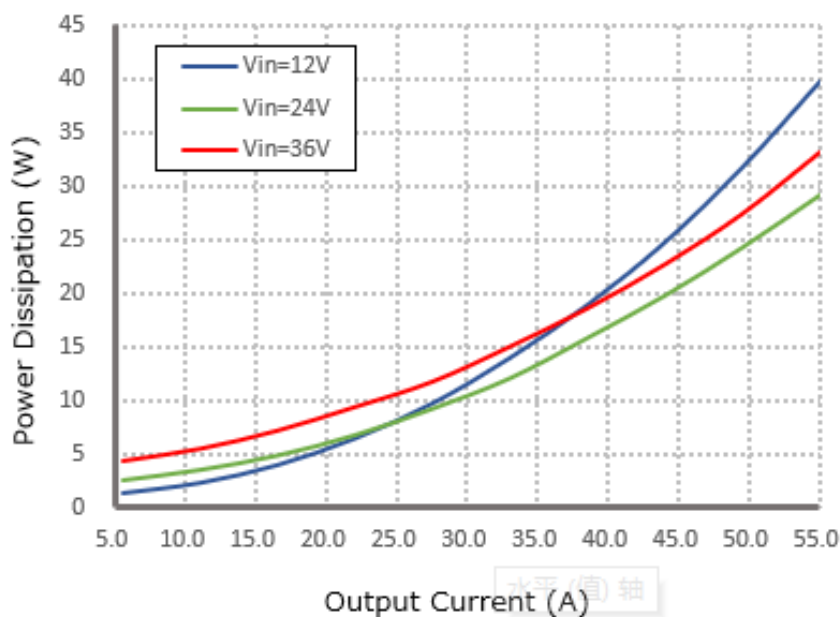


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DC-DC Lithium Bidirectional Battery Charger Specification

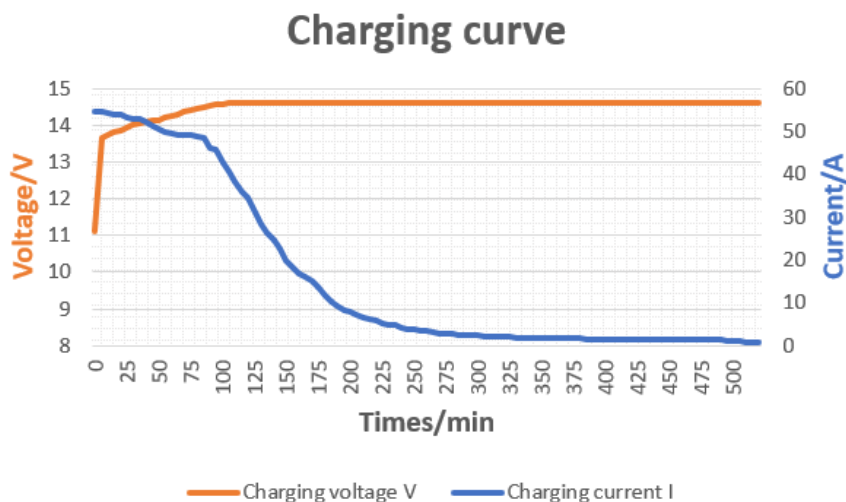
Model: WG-12BC900M

Power dissipation

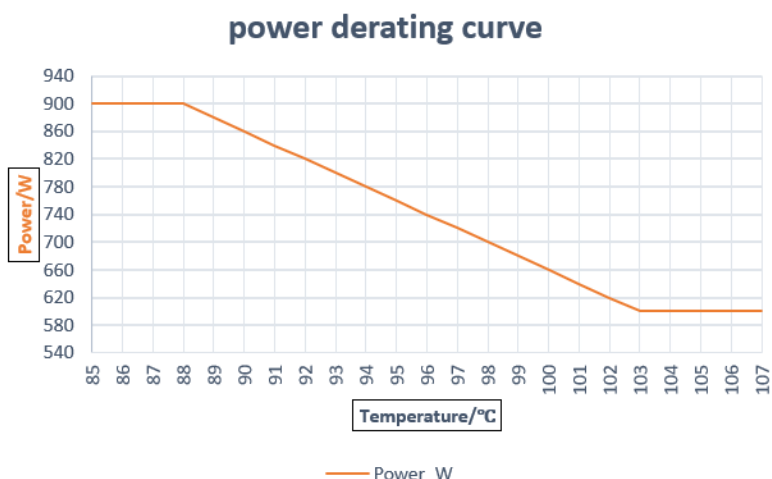


Charging curve (Vin=24VDC)

Battery type: 12V, 200AH

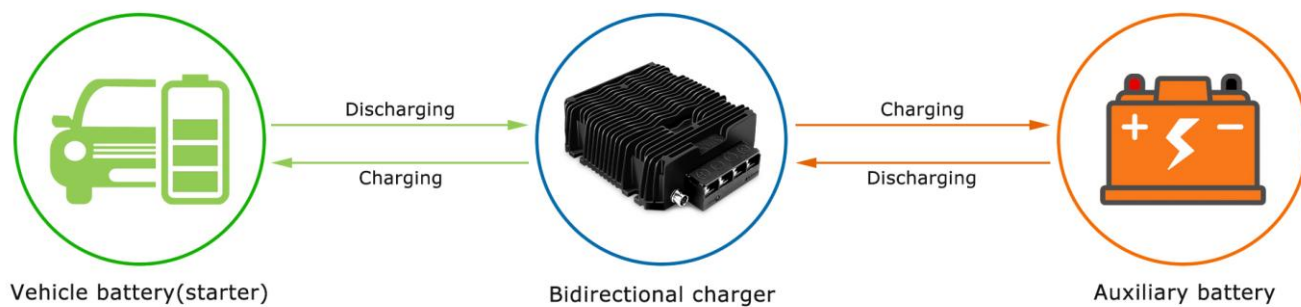


Power derating curve



►How it works

Vehicle-to-battery (V2B), Battery-to-vehicle (B2V)



Dual battery system: Battery-to-battery (B2B)



With a WG-12BC900M bidirectional charger, you can charge your dual battery system, and charge your car with the auxiliary battery.

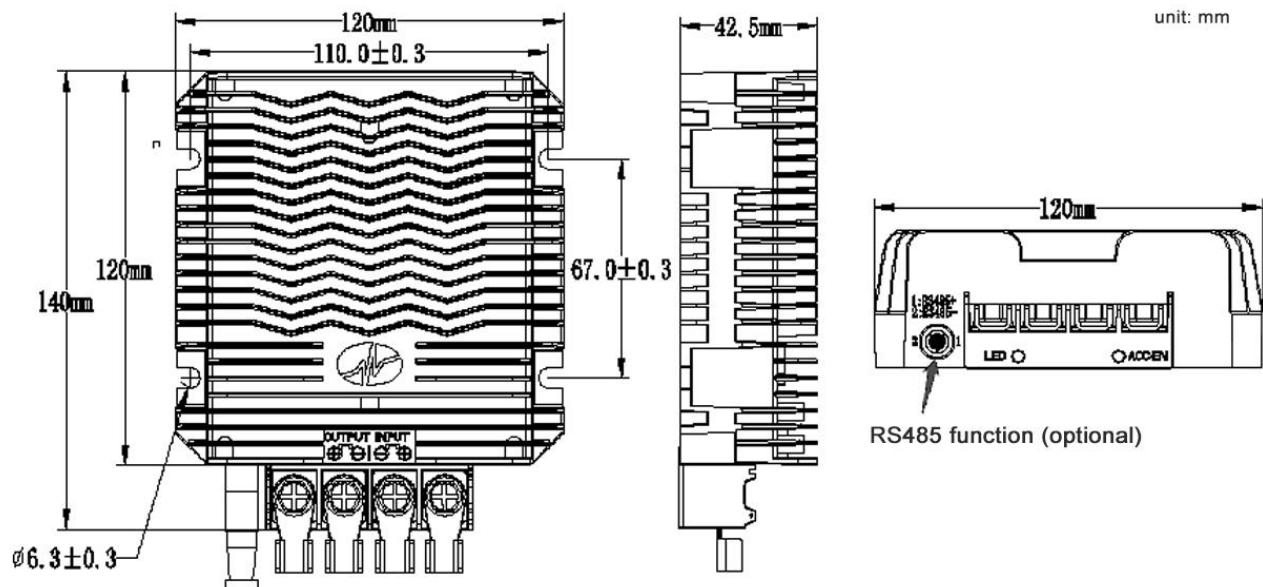


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DC-DC Lithium Bidirectional Battery Charger Specification

Model: WG-12BC900M

Dimension



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