



POWER FOR PROFESSIONAL

POWER EXPERT



**ISO 9001
CERTIFIED**

PRODUCT INTRODUCTION



We Devote Ourselves to Customer Satisfaction

LIGAO (ZHONGSHAN) ELECTRICAL APPLIANCE CO., LTD is one of the most specialized manufacturers of electrical appliances with over 30 years of experience.

Blessed with about 800 employees and 35,000 m² production area, our company manages to offer products with high quality at competitive prices.

With design, exploitation, and production connectedly flowing into our operation procedure, we win trust from our customers.

Conducted by ISO9001: 2000 and gain with UL, GS, CB, CE, and E-mark approvals, we devote substantive fund and energy into importing and developing advanced product lines and testing technology for quality products, which achieves high reputation from all our customers.

We never stop developing new products. OEM and ODM orders are also welcome.

***ELECTRONICS* CONTENTS**

DC-DC & MPPT SOLAR CHARGER	01-02
BATTERY CHARGER	03-14
PURE SINE WAVE INVERTER	15-16
MODIFIED SINE WAVE INVERTER	17-24
INVERTER WITH CHARGER	25-28
DC TO DC CONVERTER	29-30
SOLAR CHARGE CONTROLLER	31-32

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中山力高电器有限公司
LIGAO(ZHONGSHAN) ELECTRICAL APPLIANCE CO., LTD

Please select the suitable input plug or other input accessories from below listed.



P1
EUROPEAN
欧置 2.5A 250V
H03VVH2-F 2x0.5-0.75mm²



P2
EUROPEAN 欧置 10/16A 250V
H05VV-F 2x0.75-1.5mm²



P3
EUROPEAN
欧置 10A 250V
H05RN-F 2x0.75-1.0mm²



P4
(U.S.A) 美国 10A/13A 125V
SPT-1 18.16A WGx2C



P5
(U.S.A) 美国 10A/13A/15A 125V
SJTO.SJ.SJO.SJT 18.16.14A WG



P6
美国(BRITAIN) 13A 250V
H05VV-F 3G 0.75-1.5mm²



P7
美国(BRITAIN) 13A 250V
H05VV-F 3G 0.75-1.0mm²



P8
瑞士(SWIT) 10A 250V
H05VV-F 3G 0.75-1.0mm²



P9
AUSTRALIAN 澳大利亚 7.5A 250V
H03VVH2-F 2x0.5-0.75mm²



P10
AUSTRALIAN 澳大利亚 10A 250V
H05VV-F 3G 0.75-1.0mm²



P11
AUSTRALIAN 澳大利亚 10A 250V
H05VV-F 3G 0.75-1.0mm²



P12
意大利(ITALY) 10/16A 250V
H05VV-F 3G 1.0-1.5mm²



P13
中国(CHINA) 15A 250V



P14
中国(CHINA) 6/10A 250V



P15
以色列(ISRAEL) 10/16A 250V
H05VV-F 3G 0.75-1.5mm²

Please select the suitable output socket or other output accessories from below listed.



S02



S04



S05



S06



S07



S08



S09



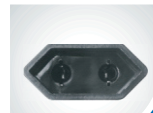
S10



S12



S16



S19



S20



S21



S22



S23



S24



S25



S26



S27

Factory Panorama



SVDC

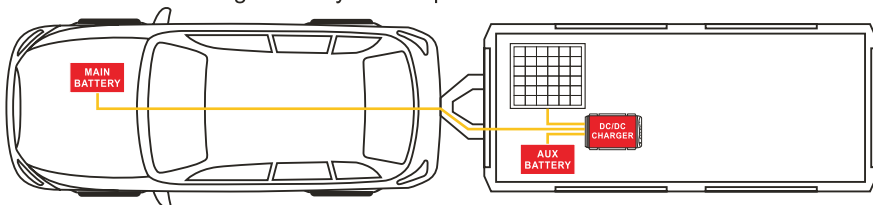
Dual Input Battery Charger

DC-DC & MPPT SOLAR CHARGER

5 Stage Automatic Switchmode

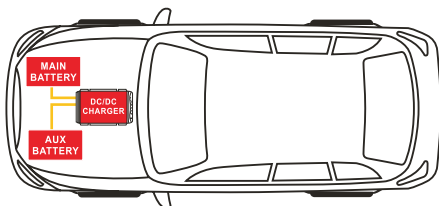
CARAVAN INSTALLATION

This 5 stage charger combines your solar energy with the power of your vehicle to ensure longer battery life and performance.



4WD INSTALLATION

A 5 stage dual battery charger installed on a bonnet holder

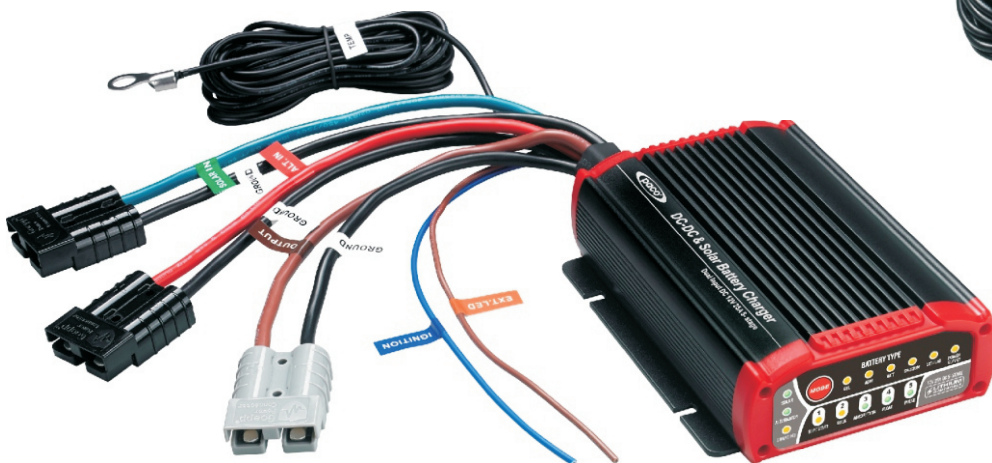


5 STAGE
DUAL BATTERY MANAGER
LiFePO4

32V MPPT
SOLAR CHARGER



SVDC1250



SVDC1225A



RoHS FC CE



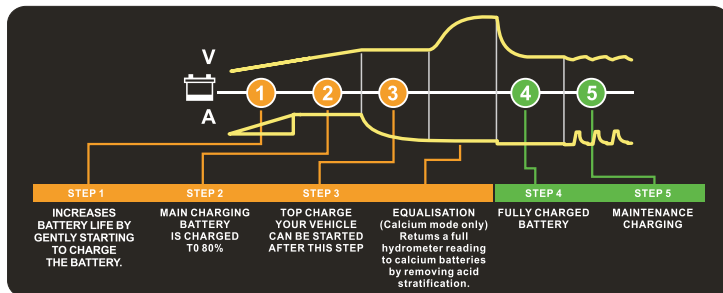
Dual Input Battery Charger

DC-DC & MPPT SOLAR CHARGER

5 Stage Automatic Switchmode

SVDC

The 5-stage battery charge



5 Stage Automatic Dual Battery Charger

SOLAR MPPT

The DC-DC & MPPT Solar charger utilises sophisticated MPPT (Maximum Power Point Tracking) solar regulator technology. MPPT maximises the power generated from the solar panels to the auxiliary battery.

VSR/SMART ALTERNATOR

Suitable for traditional or intelligent alternator vehicle dual charging mode.

DUAL INPUT OPERATION

The DC-DC MPPT Solar Charger allows obtain power from the solar panel and the alternator simultaneously. The battery charger draw as much power as possible from the solar input and then supplements the deficiency from the alternator input until the maximum rated output is reached. Thus achieving maximum utilization of green power.

SPECIFICATIONS

Operating Conditions		
Charger model	SVDC1225/SVDC1225 A	SVDC1250/SVDC1250A
Solar Input Voltage Range	9-32Vdc	
Alternator Input Voltage	9-32Vdc	
Output Current	25A	50A
Input Current (No Load)	Charger Model<50mA	Supply Model <80mA
Efficiency	App.95%	App.93%
Back Drain on Auxiliary Battery	35mA, +/-5%	
External LED Output-Constant Current	6mA	
Minimum Start Voltage (Battery)	2V	
Input Fuse Rating	50A (Not supplied)	100A (Not supplied)
Output Fuse Rating	50A (Not supplied)	100A (Not supplied)
Maximum Output Power	375W	750W
Supply Mode Output (Max)	13.8Vdc,25A	13.8Vdc,50A
Ambient temperature	-10℃ to +80℃ Output power is reduced automatically at high temperatures	
Dimension (L×W×H)	161×114×44mm	199×114×44mm
Weight	1.3kg	1.7kg
Time delay function	There is a 30 second delay before charger will cut in or cut out.	
Standards		
EMC	EN 61000, EN 55014 Class B	
IP Rating	IP67	

* Specifications are subjected to change without prior notice.

Charge Control				
Charger type	5-step fully automatic charging			
Soft start	6.25A up to 11V		12.5A up to 11V	
Bulk	25A up to 14.1V (GEL) 14.4(AGM) 14.7V(WET) 15.4V(CALCIUM) 14.4V(LITHIUM)		50A up to 14.1V (GEL) 14.4(AGM) 14.7V(WET) 15.4V(CALCIUM) 14.4V(LITHIUM)	
Absorption	Constant voltage until current drops to3.8A		Constant voltage until current drops to7.5A	
Float	13.7V Also with pulse feature (GEL, AGM, WET, Calcium)			
	13.6V Also with pulse feature (LITHIUM)			
Pulse	12.6V- 14.1V, 25-2.5A(GEL)		12.6V- 14.1V, 50-5A(GEL)	
	12.6V- 14.4V, 25-2.5A(AGM)		12.6V- 14.4V, 50-5A (AGM)	
	12.6V- 14.7V, 25-2.5A(WEL)		12.6V- 14.7V, 50-5A(WEL)	
	12.6V- 15.4V, 25-2.5A(CALCIUM)		12.6V- 15.4V, 50-5A(CALCIUM)	
	12.6V- 14.4V,25-2.5A(LITHIUM)		12.6V- 14.4V, 50-5A(LITHIUM)	
Equalisation (Calcium mode only)	3.8A Constant Current Charge up to 16V then hold 1 hour (5 hours timeout)		7.5A Constant Current Charge up to 16V then hold 1 hour (5 hours timeout)	
Battery Range				
Types of batteries	GEL, AGM, WET, Calcium	Lithium	GEL, AGM, WET, Calcium	Lithium
Deep Cycle	75-300Ah	50-250Ah	150-600Ah	100-500Ah
Types of Batteries	All types of 12 V lead-acid batteries GEL , AGM ,WET, Calcium, and Lithium			
Operating Model	12V Vehicle		24V Vehicle	
VSR Model-Default (Ignition Override Not Connected)	Turn on 13.2V	Turn off 12.8V	Turn on 26.4V	Turn off 25.2V
Low Voltage Model- Ignition Override cable connected to ignition switch (Ignition on)	Turn on 12.2V	Turn off 10.5V	Turn on 24.4V	Turn off 23.2V

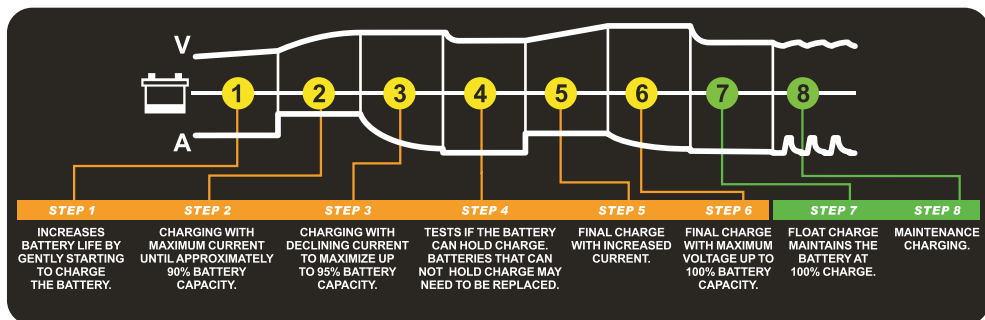
MEC BATTERY CHARGER

McU Controlled & 8-Stage Switchmode

No matter the size or type, leave it to MEC-charge. power for professionals

The Lithium battery mode 8-stages are:

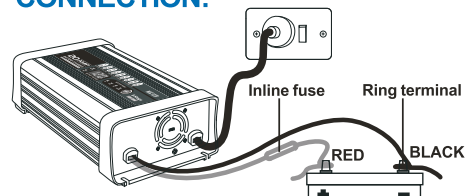
Soft Start; Bulk; Absorption; Analyse; Completion; Maximization; Float and Maintain.



FUNCTION:

1. Polarity protection
2. Output short protection
3. Non battery link protection
4. Disconnect protection
5. Over voltage protection
6. Over temperature protection
7. Automatic temperature controlled cooling fan.

CONNECTION:



MEC 1205L MEC 1207L



MEC 1210L MEC 1212L



MEC 2405L MEC 2410L



MEC 1215L MEC 1220L

CE CB RoHS



8-STAGE LITHIUM BATTERY CHARGING MODE

This is a fully automatic battery charger with 8 charge stages.

Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely.

8-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers.

8-stage chargers are suitable for most battery types including LITHIUM, GEL, AGM, WET, MF and CALCIUM batteries. They may also help restore drained and sulphated batteries.

STEP 1 SOFT START

A preliminary charge processes that gently introduces power to the battery. This protects the battery and increases battery life.

STEP 2 BULK

Charging with maximum current until approximately 90% battery capacity.

Bulk mode for the charging cycle. The start phase continues until the battery's terminal voltage has risen above the set limit, at which point the charger switches to bulk charging. If the terminal voltage has not passed the voltage limit within the time limit, the charger switches to fault mode (Step 2 lamp solid) and discontinues the charging. If so, the battery is faulty or its capacity is too large.

STEP 3 ABSORPTION

Charging with declining current to maximize up to 95% battery capacity.

STEP 4 ANALYSE

Tests if the battery can hold charge. Batteries that can not hold charge may need to be replaced.

STEP 5 COMPLETION

Final charge with increased current.

STEP 6 MAXIMIZATION

Final charge with maximum voltage up to 100% battery capacity.

STEP 7 FLOAT

The Float stage maintains the battery at 100% charge without overcharging or damaging the battery. This means the charger can be left connected to the battery indefinitely.

STEP 8 MAINTAIN

Maintaining the battery at 95-100% capacity. The charger monitors the battery voltage and gives a maintain when necessary to keep the battery fully charged.

The AUTOMATIC BATTERY CHARGER has an 8-step fully automatic charging cycle, the cycle is repeated infinitely. If the terminal voltage drops below a lower limit, the charger automatically goes back to the beginning of the charging curve.

SPECIFICATIONS

P/No.	MEC 1205L	MEC 1207L	MEC 1210L	MEC 1212L	MEC 1215L	MEC 1220L	MEC 2405L	MEC 2410L
Charger Type	8-Stage automatic				8-Stage automatic			
Input Voltage	220-240V~, 50/60Hz / 110V~, 60Hz				220-240V~, 50/60Hz / 110V~, 60Hz			
Input Power	154W	215W	307W	332W	415W	554W	296W	547W
Output Voltage	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC	24V DC	24V DC
Output Current	5A	7A	10A	12A	15A	20A	5A	10A
Minimum Start Voltage	Lead Acid: 2.0V Lithium:1.0V						Lead Acid: 4.0V Lithium:2.0V	
Back Drain	4mA	4mA	4mA	4mA	4mA	4mA	8mA	8mA
Current Fuse Rating	T3.15A, 250VAC			T3.15A, 250VAC	<input type="checkbox"/> T3.15A, 250VAC <input type="checkbox"/> T5A, 250VAC	<input type="checkbox"/> T5A, 250VAC <input type="checkbox"/> T6.3A, 250VAC	T3.15A, 250VAC	<input type="checkbox"/> T5A, 250VAC <input type="checkbox"/> T6.3A, 250VAC
CHARGE CONTROL								
LITHIUM BATTERY CHARGE STAGE: 1 - Soft Start 2 - Bulk 3 - Absorption 4 - Analyse 5 - Completion 6 - Maximization 7 - Float 8 - Maintain								
LEAD ACID BATTERY CHARGE STAGE: 1 - Desulphation 2 - Soft Start 3 - Bulk 4 - Absorption 5 - Analyse 6 - Recondition 7 - Float 8 - Pulse								
Over Voltage Protection	The 12V lithium charger will automatically protection if the voltage is higher than 15.5V.						The 24V lithium battery charger will automatically protection if the voltage is higher than 31V.	
	The 12V lead acid charger will automatically protection if the voltage is higher than 17.5V						The 24V lead acid charger will automatically protection if the voltage is higher than 35V.	
BATTERY RANGE								
Deep Cycle Lithium Battery	10-50Ah	14-70Ah	20-100Ah	24-120Ah	30-150Ah	40-200Ah	10-50Ah	20-100Ah
Deep Cycle Lead Acid Battery	35-100Ah	50-140Ah	70-200Ah	80-240Ah	100-300Ah	134-400Ah	35-100Ah	70-200Ah
Types of Batteries	Most types of 12V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL						Most types of 24V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL	
Efficiency	App.85%				App.85%			
Thermal Protect	65°C +/-5°C				65°C +/-5°C			
Cooling Fan	Automatic temperature controlled				Automatic temperature controlled			
Ambient Temperature	-20°C to +50°C , output power is reduced automatically at high temperatures				-20°C to +50°C , output power is reduced automatically at high temperatures			
Dimension(LxWxH)	197x116x62mm	197x116x62mm	197x116x62mm	197x116x62mm	217x116x62mm	217x116x62mm	197x116x62mm	217x116x62mm
Weight	1.05Kg	1.05Kg	1.1Kg	1.1Kg	1.28Kg	1.28Kg	1.1Kg	1.28Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

MEC BATTERY CHARGER

McU Controlled & 8-Stage Switchmode

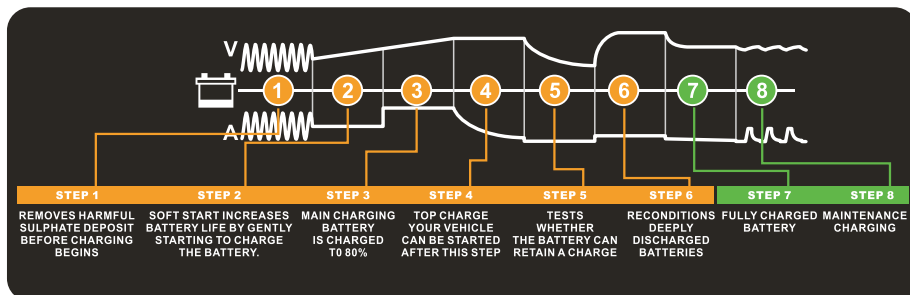
No matter the size or type, leave it to MEC-charge. power for professionals



CE CB RoHS

The Lead Acid battery mode 8-stages are:

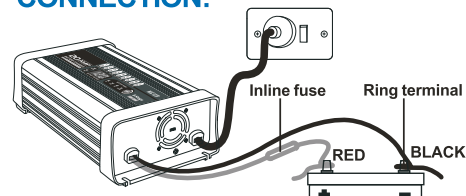
Desulphation; Soft Start; Bulk; Absorption; Analyse; Recondition; Float and Pulse.



FUNCTION:

1. Polarity protection
2. Output short protection
3. Non battery link protection
4. Disconnect protection
5. Over voltage protection
6. Over temperature protection
7. Automatic temperature controlled cooling fan.

CONNECTION:



MEC 1225L

8 STAGE
SMART/AUTOMATIC
12/24 VOLT
MEC/MFC-Series



MEC 2413L



MEC 1235L



MEC 2418L

Mcu Controlled & 8-Stage Switchmode **BATTERY CHARGER** **MEC**

No matter the size or type, leave it to MEC-charge. power for professionals

8-STAGE AUTOMATIC CHARGING

This is a fully Power Factor Correction (PFC) automatic battery charger with 8 charge stages. Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely. 8-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers.

The AUTOMATIC BATTERY CHARGER has an 8-step fully automatic charging cycle, the cycle is repeated infinitely. If the terminal voltage drops below a lower limit, the charger automatically goes back to the beginning of the charging curve.

SPECIFICATIONS

P/No.	MEC 1225L	MEC 1235L	MEC 2413L	MEC 2418L
Charger Type	8-Stage automatic			
Input Voltage	220-240V~, 50/60Hz / 110V~, 60Hz			
Input Power	428W	598W	433W	610W
Output Voltage	12V DC	12V DC	24V DC	24V DC
Output Current	25A	35A	13A	18A
Minimum Start Voltage	Lead Acid: 2.0V Lithium: 1.0V		Lead Acid: 4.0V Lithium: 2.0V	
Back Drain	1.5mA	4mA	1.5mA	4mA
Current Fuse Rating	220-240V~, T5A, 250V AC / 110V~, T8A, 250V AC			
CHARGE CONTROL				
LITHIUM BATTERY CHARGE STAGE: 1 - Soft Start 2 - Bulk 3 - Absorption 4 - Analyse 5 - Completion 6 - Maximization 7 - Float 8 - Maintain				
LEAD ACID BATTERY CHARGE STAGE: 1 - Desulphation 2 - Soft Start 3 - Bulk 4 - Absorption 5 - Analyse 6 - Recondition 7 - Float 8 - Pulse				
Over Voltage Protection	The 12V lithium battery charger will automatically protection if the voltage is higher than 15.5V.		The 24V lithium battery charger will automatically protection if the voltage is higher than 31V.	
	The 12V lead acid charger will automatically protection if the voltage is higher than 17.5V.		The 24V lead acid charger will automatically protection if the voltage is higher than 35V.	
SUPPLY MODE				
Set Voltage	13.8V	13.8V	27.6V	27.6V
Maximum Current	25A	35A	13A	18A
Efficiency	App.85%			
Thermal Protect	65°C +/-5°C			
Cooling Fan	Automatic temperature controlled			
Ambient Temperature	-20°C to +50°C , output power is reduced automatically at high temperatures			
BATTERY RANGE				
Deep Cycle	50-250Ah (LITHIUM BATTERY) 167-500Ah (LEAD ACID BATTERY)	70-350Ah (LITHIUM BATTERY) 240-700Ah (LEAD ACID BATTERY)	26-130Ah (LITHIUM BATTERY) 86-260Ah (LEAD ACID BATTERY)	36-180Ah (LITHIUM BATTERY) 120-360Ah (LEAD ACID BATTERY)
Types of Batteries	Most types of 12V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL		Most types of 24V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL	
Dimension (L×W×H)	217x116x62mm	250x142x58mm	217x116x62mm	250x142x58mm
Weight	1.32Kg	1.67Kg	1.32Kg	1.67Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

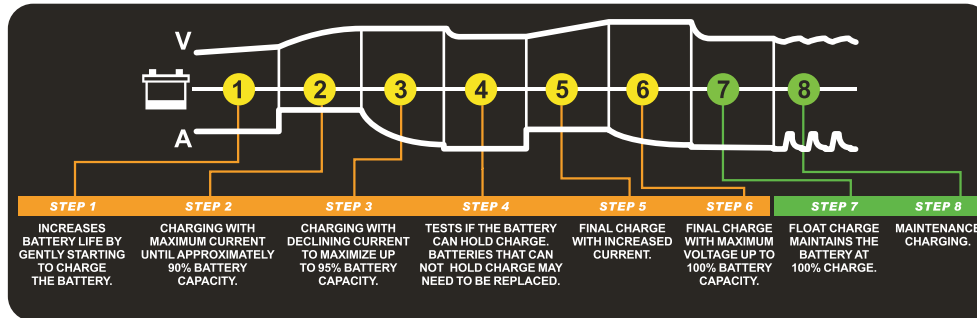
MFC BATTERY CHARGER

McU Controlled & 8-Stage Switchmode

No matter the size or type, leave it to MFC-charge. power for professionals

The Lithium battery mode 8-stages are:

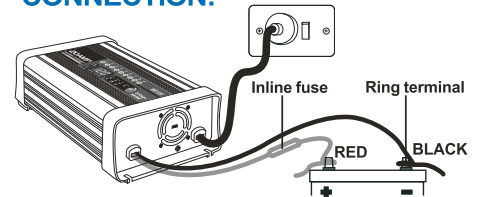
Soft Start; Bulk; Absorption; Analyse; Completion; Maximization; Float and Maintain.



FUNCTION:

1. Polarity protection
2. Output short protection
3. Non battery link protection
4. Disconnect protection
5. Over voltage protection
6. Over temperature protection
7. Automatic temperature controlled cooling fan.
8. Night. Charging with reduced power and almost silent fan for 8 hours.

CONNECTION:



MFC 1205L MFC 1207L



MFC 1210L MFC 1212L

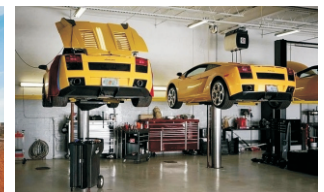


MFC 2405L MFC 2410L



MFC 1215L MFC 1220L

CE CB RoHS



Mcu Controlled & 8-Stage Switchmode

No matter the size or type, leave it to MFC-charge. power for professionals

BATTERY CHARGER

MFC

8-STAGE LEAD ACID BATTERY CHARGING MODE

This is a fully automatic battery charger with 8 charge stages.

Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely.

8-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers.

8-stage chargers are suitable for most battery types including LITHIUM, GEL, AGM, WET, MF and CALCIUM batteries. They may also help restore drained and sulphated batteries.

Desulphation

The Desulphation stage may break down sulphation that occurs in batteries that have been left flat for extended periods of time, returning them back to full charge.

Sulphation occurs when lead-sulphate hardens and clogs up the battery cells.

Soft Start

A preliminary charge processes that gently introduces power to the battery. This protects the battery and increases battery life.

Bulk (Constant Current)

Charging with maximum current until approximately 80% battery capacity.

Bulk mode for the charging cycle. The start phase continues until the battery's terminal voltage has risen above the set limit, at which point the charger switches to bulk charging. If the terminal voltage has not passed the voltage limit within the time limit, the charger switches to fault mode (Step 3 lamp solid) and discontinues the charging. If so, the battery is faulty or its capacity is too large.

Absorption (Constant Voltage)

Charging with declining current to maximize up to 100% battery capacity.

Analyse

An automatic battery test is conducted immediately after the absorption stage. The test monitors the voltage for 90 seconds to determine if the charge was successful.

Recondition

Choose the Recond program to add the Recond step to the charging process. During the Recond step voltage increases to create controlled gassing in the battery. Gassing mixes the battery acid and gives back energy to the battery.

This recondition stage can recover batteries from a deeply discharged state increasing performance and battery life.

RECOND - This mode is used to recover deep discharged flooded batteries where you could expect a stratified acid (high acid weight in the bottom, low on top). Check with battery manufacturer when in doubt.

Use this mode with care, because the high voltage will cause some water loss. 16V/32V is normally no problem for electronics in 12V/24V system. Consult your supplier when in doubt. Life of light bulbs will be reduced at higher voltage. Try to disconnect light from the battery during this phase. Maximum effect and minimum risk for electronics is achieved by charging a disconnected battery.

Float

The Float stage maintains the battery at 100% charge without overcharging or damaging the battery. This means the charger can be left connected to the battery indefinitely.

Pulse

Maintaining the battery at 95/100% capacity. The charger monitors the battery voltage and gives a pulse when necessary to keep the battery fully charged.

The AUTOMATIC BATTERY CHARGER has an 8-step fully automatic charging cycle, the cycle is repeated infinitely. If the terminal voltage drops below a lower limit, the charger automatically goes back to the beginning of the charging curve.

SPECIFICATIONS

P/No.	MFC 1205L	MFC 1207L	MFC 1210L	MFC 1212L	MFC 1215L	MFC 1220L	MFC 2405L	MFC 2410L
Charger Type	8-Stage automatic				8-Stage automatic			
Input Voltage	220-240V~, 50/60Hz / 110V~, 60Hz				220-240V~, 50/60Hz / 110V~, 60Hz			
Input Power	154W	215W	307W	332W	415W	554W	296W	547W
Output Voltage	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC	24V DC	24V DC
Output Current	5A	7A	10A	12A	15A	20A	5A	10A
Minimum Start Voltage	Lead Acid: 2.0V Lithium: 1.0V						Lead Acid: 4.0V Lithium: 2.0V	
Back Drain	4mA	4mA	4mA	4mA	4mA	4mA	8mA	8mA
Current Fuse Rating	T3.15A, 250VAC			T3.15A, 250VAC	<input type="checkbox"/> T3.15A, 250VAC <input type="checkbox"/> T5A, 250VAC	<input type="checkbox"/> T5A, 250VAC <input type="checkbox"/> T6.3A, 250VAC	T3.15A, 250VAC	<input type="checkbox"/> T5A, 250VAC <input type="checkbox"/> T6.3A, 250VAC

CHARGE CONTROL

LITHIUM BATTERY CHARGE STAGE: 1 - Soft Start 2 - Bulk 3 - Absorption 4 - Analyse 5 - Completion 6 - Maximization 7 - Float 8 - Maintain

LEAD ACID BATTERY CHARGE STAGE: 1 - Desulphation 2 - Soft Start 3 - Bulk 4 - Absorption 5 - Analyse 6 - Recondition 7 - Float 8 - Pulse

Over Voltage Protection	The 12V lithium charger will automatically protection if the voltage is higher than 15.5V.	The 24V lithium battery charger will automatically protection if the voltage is higher than 31V.
	The 12V lead acid charger will automatically protection if the voltage is higher than 17.5V	The 24V lead acid charger will automatically protection if the voltage is higher than 35V.

BATTERY RANGE

Deep Cycle Lithium Battery	10-50Ah	14-70Ah	20-100Ah	24-120Ah	30-150Ah	40-200Ah	10-50Ah	20-100Ah
Deep Cycle Lead Acid Battery	35-100Ah	50-140Ah	70-200Ah	80-240Ah	100-300Ah	134-400Ah	35-100Ah	70-200Ah
Types of Batteries	Most types of 12V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL						Most types of 24V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL	
Efficiency	App.85%				App.85%			
Thermal Protect	65°C +/-5°C				65°C +/-5°C			
Cooling Fan	Automatic temperature controlled				Automatic temperature controlled			
Ambient Temperature	-20°C to +50°C , output power is reduced automatically at high temperatures				-20°C to +50°C , output power is reduced automatically at high temperatures			
Dimension(LxWxH)	197x116x62mm	197x116x62mm	197x116x62mm	197x116x62mm	217x116x62mm	217x116x62mm	197x116x62mm	217x116x62mm
Weight	1.05Kg	1.05Kg	1.1Kg	1.1Kg	1.28Kg	1.28Kg	1.1Kg	1.28Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

MFC BATTERY CHARGER

McU Controlled & 8-Stage Switchmode

No matter the size or type, leave it to MFC-charge. power for professionals

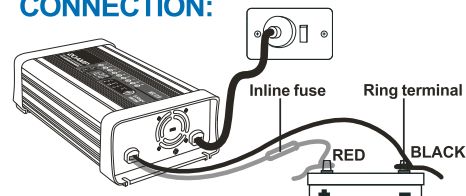


CE CB RoHS

FUNCTION:

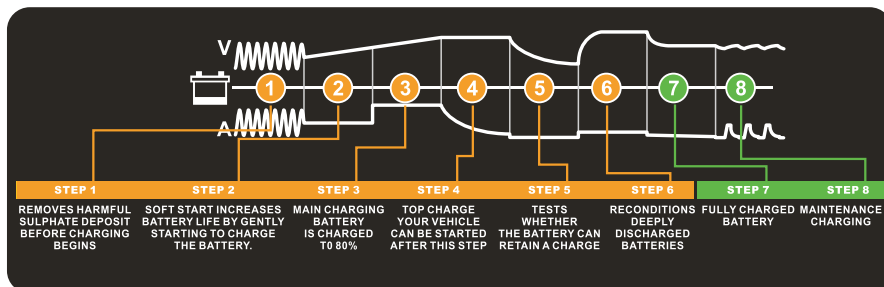
1. Polarity protection
2. Output short protection
3. Non battery link protection
4. Disconnect protection
5. Over voltage protection
6. Over temperature protection
7. Automatic temperature controlled cooling fan.
8. Night. Charging with reduced power and almost silent fan for 8 hours.

CONNECTION:



The Lead Acid battery mode 8-stages are:

Desulphation; Soft Start; Bulk; Absorption; Analyse; Recondition; Float and Pulse.



MFC 1225L



MFC 2413L



MFC 1235L



MFC 2418L



Mcu Controlled & 8-Stage Switchmode **BATTERY CHARGER** **MFC**

No matter the size or type, leave it to MFC-charge. power for professionals

8-STAGE AUTOMATIC CHARGING

This is a fully Power Factor Correction (PFC) automatic battery charger with 8 charge stages. Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely. 8-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers.

The AUTOMATIC BATTERY CHARGER has an 8-step fully automatic charging cycle, the cycle is repeated infinitely. If the terminal voltage drops below a lower limit, the charger automatically goes back to the beginning of the charging curve.

Night mode

1. NIGHT – This mode is equal to NORMAL, but with reduced current. The noise of the built-in fan has reduced to its lowest level and the unit is almost silent. The Unit returns automatically to NORMAL after 8 hours. To ensure that the charger restarts in "NIGHT" mode in the event of a power failure the setting is stored in a memory. The indication shows "NIGHT" even if the charger has returned to NORMAL mode to remind that the charger will start in NIGHT mode next time.
2. NIGHT – The "NIGHT" mode will fail in the event of a power failure and also the charger is disconnected with the battery. Next time use this function to be reset.
3. If want to cancel the "NIGHT" function, press the mode button to cancel until "NIGHT" indicator quench.

SPECIFICATIONS

P/No.	MFC 1225L	MFC 1235L	MFC 2413L	MFC 2418L
Charger Type	8-Stage automatic			
Input Voltage	220-240V~, 50/60Hz / 110V~, 60Hz			
Input Power	428W	598W	433W	610W
Output Voltage	12V DC	12V DC	24V DC	24V DC
Output Current	25A	35A	13A	18A
Minimum Start Voltage	Lead Acid: 2.0V Lithium: 1.0V		Lead Acid: 4.0V Lithium: 2.0V	
Back Drain	1.5mA	4mA	1.5mA	4mA
Current Fuse Rating	220-240V~, T5A, 250V AC / 110V~, T8A, 250V AC			
CHARGE CONTROL				
LITHIUM BATTERY CHARGE STAGE: 1 - Soft Start 2 - Bulk 3 - Absorption 4 - Analyse 5 - Completion 6 - Maximization 7 - Float 8 - Maintain				
LEAD ACID BATTERY CHARGE STAGE: 1 - Desulphation 2 - Soft Start 3 - Bulk 4 - Absorption 5 - Analyse 6 - Recondition 7 - Float 8 - Pulse				
Over Voltage Protection	The 12V lithium battery charger will automatically protection if the voltage is higher than 15.5V.		The 24V lithium battery charger will automatically protection if the voltage is higher than 31V.	
	The 12V lead acid charger will automatically protection if the voltage is higher than 17.5V.		The 24V lead acid charger will automatically protection if the voltage is higher than 35V.	
SUPPLY MODE				
Set Voltage	13.8V	13.8V	27.6V	27.6V
Maximum Current	25A	35A	13A	18A
Efficiency	App.85%			
Thermal Protect	65°C +/-5°C			
Cooling Fan	Automatic temperature controlled			
Ambient Temperature	-20°C to +50°C , output power is reduced automatically at high temperatures			
BATTERY RANGE				
Deep Cycle	50-250Ah (LITHIUM BATTERY) 167-500Ah (LEAD ACID BATTERY)	70-350Ah (LITHIUM BATTERY) 240-700Ah (LEAD ACID BATTERY)	26-130Ah (LITHIUM BATTERY) 86-260Ah (LEAD ACID BATTERY)	36-180Ah (LITHIUM BATTERY) 120-360Ah (LEAD ACID BATTERY)
Types of Batteries	Most types of 12V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL		Most types of 24V Lithium-ion LiFePO4 batteries and Lead Acid batteries including WET, MF, Calcium, AGM and GEL	
Dimension (L×W×H)	217x116x62mm	250x142x58mm	217x116x62mm	250x142x58mm
Weight	1.32Kg	1.67Kg	1.32Kg	1.67Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

LBC

BATTERY CHARGER

8-STAGE 12V AUTOMATIC LITHIUM (LiFePO4)

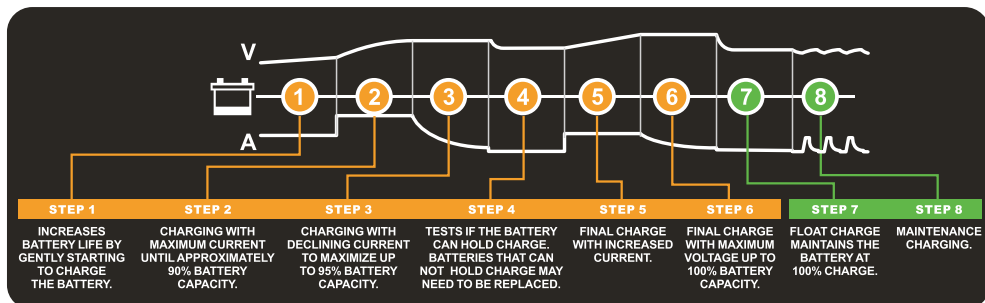
No matter the size or type, leave it to LBC-Charger.

8 STAGE

SMART / AUTOMATIC

LiFePO4

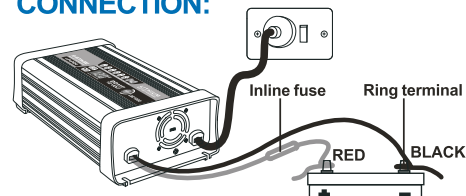
Soft Start, Bulk, Absorption, Analyse, Completion, Maximization, Float, And Maintain.



FUNCTION:

1. Protective Features
2. Polarity Protection
3. Output Short Protection
4. Non Battery Link Protection
5. Disconnect Protection
6. Over Voltage Protection
7. Over Temperature Protection
8. Cooling Fan

CONNECTION:



LBC 1205 | LBC 1207



LBC 1210 | LBC 1212



LBC 1215 | LBC 1220

CE CB RoHS



12V AUTOMATIC LITHIUM BATTERY CHARGER

12V AUTOMATIC LITHIUM BATTERY CHARGER

This is a fully automatic lithium battery charger with 8 charge stages.

Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely.

8-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers.

The 8-stage chargers is designed for Lithium-ion batteries using LiFePO4 technology only.

STEP 1 SOFT START

A preliminary charge processes that gently introduces power to the battery. This protects the battery and increases battery life.

STEP 2 BULK

Charging with maximum current until approximately 90% battery capacity.

Bulk mode for the charging cycle. The start phase continues until the battery's terminal voltage has risen above the set limit, at which point the charger switches to bulk charging. If the terminal voltage has not passed the voltage limit within the time limit, the charger switches to fault mode (Step 2 lamp solid) and discontinues the charging. If so, the battery is faulty or its capacity is too large.

STEP 3 ABSORPTION

Charging with declining current to maximize up to 95% battery capacity.

STEP 4 ANALYSE

Tests if the battery can hold charge. Batteries that can not hold charge may need to be replaced.

STEP 5 COMPLETION

Final charge with increased current.

STEP 6 MAXIMIZATION

Final charge with maximum voltage up to 100% battery capacity.

STEP 7 FLOAT

The Float stage maintains the battery at 100% charge without overcharging or damaging the battery. This means the charger can be left connected to the battery indefinitely.

STEP 8 MAINTAIN

Maintaining the battery at 95 - 100% capacity. The charger monitors the battery voltage and gives a maintain when necessary to keep the battery fully charged.

The 12V AUTOMATIC LITHIUM BATTERY CHARGER has an 8-step fully automatic charging cycle, the cycle is repeated infinitely. If the terminal voltage drops below a lower limit, the charger automatically goes back to the beginning of the charging curve.

SPECIFICATIONS

P/No.	LBC 1205	LBC 1207	LBC 1210	LBC 1212	LBC 1215	LBC 1220
Charger Type	8-Stage automatic					
Input Voltage	220-240V~, 50/60Hz / 110V~, 60Hz					
Input Power	154W	215W	307W	332W	415W	554W
Output Voltage	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC
Output Current	5A	7A	10A	12A	15A	20A
Minimum Start Voltage	1.0V	1.0V	1.0V	1.0V	1.0V	1.0V
Back Drain	4mA	4mA	4mA	4mA	4mA	4mA
Current Fuse Rating	250VAC, T3.15A	250VAC, T3.15A	250VAC, T3.15A	250VAC, T3.15A	250VAC, T3.15A	250VAC, T5A
CHARGE CONTROL						
Soft Start	25% Current until 11V					
Bulk	5A up to 13.8V	7A up to 13.8V	10A up to 13.8V	12A up to 13.8V	15A up to 13.8V	20A up to 13.8V
Absorption	Constant voltage until current drops to 0.75A	Constant voltage until current drops to 1.05A	Constant voltage until current drops to 1.5A	Constant voltage until current drops to 1.8A	Constant voltage until current drops to 2.25A	Constant voltage until current drops to 3A
Analyse	Monitors voltage for 3 minutes					
Completion	1.5A Current until 14.5V	2.1A Current until 14.5V	3A Current until 14.5V	3.6A Current until 14.5V	4.5A Current until 14.5V	6A Current until 14.5V
Maximization	Constant 14.5V until current drops to 0.75A	Constant 14.5V until current drops to 1.05A	Constant 14.5V until current drops to 1.5A	Constant 14.5V until current drops to 1.8A	Constant 14.5V until current drops to 2.25A	Constant 14.5V until current drops to 3A
Float	13.6V , 100% Current					
Maintain	13.4V-13.8V , 5-1A	13.4V-13.8V , 7-1.4A	13.4V-13.8V , 10-2A	13.4V-13.8V , 12-2.4A	13.4V-13.8V , 15-3A	13.4V-13.8V , 20-4A
Efficiency	App.85%					
Thermal Protect	65°C +/-5°C					
Cooling Fan	Automatic temperature controlled					
Ambient Temperature	-20°C to +50°C , output power is reduced automatically at high temperatures					
Over Voltage Protection	The 12V lithium battery charger will automatically protection if the voltage is higher than 15.5V.					
BATTERY RANGE						
Deep Cycle	10-50Ah	14-70Ah	20-100Ah	24-120Ah	30-150Ah	40-200Ah
Types of Batteries	12V Lithium-ion LiFePO4 batteries					
Dimension (L×W×H)	197x116x62mm	197x116x62mm	197x116x62mm	197x116x62mm	217x116x62mm	217x116x62mm
Weight	1.05Kg	1.05Kg	1.1Kg	1.1Kg	1.28Kg	1.28Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

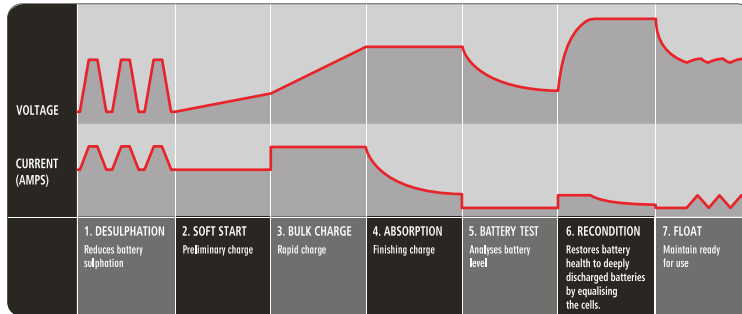
MBC BATTERY CHARGER

McU Controlled & 7-Stage Switchmode

No matter the size or type, leave it to MBC-charge. power for professionals

THE 7 STAGES ARE:

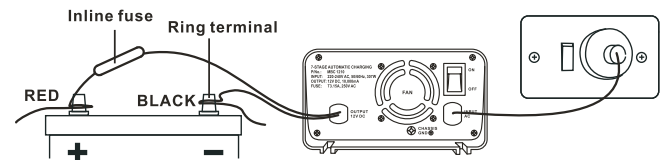
Desulphation ; Soft Start; Bulk; Absorption;
Battery Test; Recondition and Float.



FUNCTION:

1. Cut off the supplied battery clips; ensure you leave sufficient cable to reach the battery terminals. (DO NOT extend the battery charger DC cables, as the added voltage drop will cause incorrect charging).
2. Fit a ring terminal to the BLACK Negative (-) wire.
3. Connect the inline fuse to the RED Positive (+) wire.
4. Connect a ring terminal to the other end of the inline fuse.
5. Connect the RED lead (with inline fuse and ring terminal) to the Positive (+) battery post.
6. Connect the BLACK lead (with ring terminal) to the Negative (-) battery post.
7. Fit the correctly rated fuse.

CONNECTION:



MBC 1205 MBC 1207



MBC 1210 MBC 1212



MBC 2405 MBC 2410



MBC 1215 MBC 1220



CE
CB
RoHS

Mcu Controlled & 7-Stage Switchmode **BATTERY CHARGER** **MBC**

No matter the size or type, leave it to MBC-charge. power for professionals

7-STAGE AUTOMATIC CHARGING

This is a fully automatic battery charger with 7 charge stages. Automatic charging protects your battery from being overcharged. So you can leave the charger connected to the battery indefinitely. 7-stage charging is a very comprehensive and accurate charging process that gives your battery longer life and better performance compared to using traditional chargers. 7-stage chargers are suitable for most battery types including Calcium, Gel and AGM batteries. They may also help restore drained and sulphated batteries.

Desulphation

The Desulphation stage may break down sulphation that occurs in batteries that have been left flat for extended periods of time, returning them back to full charge. sulphation occurs when lead-sulphate hardens and clogs up the battery cells.

Soft Start

A preliminary charge processes that gently introduces power to the battery. This protects the battery and increases battery life.

Bulk (Constant Current)

Bulk mode charges the battery at the maximum rate (constant current) putting a large amount of power into the battery in a short amount of time. This stage will charge the battery to approximately 80%, until the voltage reaches 14.4 volts for 12V charger or 28.8 volts for 24V charger.

Absorption (Constant Voltage)

The charge rate slows down so the battery can absorb more power and reach 100% charge. The voltage remains at a constant 14.4 volts for 12V charger or 28.8 volts for 24V charge while the current is gradually reduced until no more power can be added without over-charging the battery.

Battery Test

An automatic battery test is conducted immediately after the absorption stage. The test monitors the voltage for 90 seconds to determine if the charge was successful.

Recondition

The battery reconditioning function is initiated automatically in the case that the battery fails the battery test (stage 5). Failing the battery test indicates that the absorption stage was unable to fully charge the battery. The recondition mode will then begin to introduce a low constant current for a period of 4 hours. Then the charger will go into float charging mode. This recondition stage can recover batteries from a deeply discharged state increasing performance and battery life.

Float

The Float stage maintains the battery at 100% charge without overcharging or damaging the battery. This means the charger can be left connected to the battery indefinitely.

SPECIFICATIONS

P/No.	MBC 1205	MBC 1207	MBC 1210	MBC 1212	MBC 1215	MBC 1220	MBC 2405	MBC 2410
Type	7-Stage automatic							
Input Voltage	220-240V~, 50Hz / 110V~, 60Hz							
Input Power	154W	215W	307W	332W	415W	554W	296W	547W
Output Voltage / Current	12V DC, 5000mA	12V DC, 7000mA	12V DC, 10,000mA	12V DC, 12,000mA	12V DC, 15,000mA	12V DC, 20,000mA	24V DC, 5000mA	24V DC, 10,000mA
Minimum Start Voltage	2V	2V	2V	2V	2V	2V	4V	4V
Current Fuse Rating	250V AC, T3.15A	250V AC, T3.15A	250V AC, T3.15A	250V AC, T3.15A	250V AC, T3.15A	250V AC, T5A	250V AC, T3.15A	250V AC, T5A
CHARGE CONTROL								
Desulphation	Pulse charge up to 11V						Pulse charge up to 22V	
Soft Start	Half the rated set current up to 12V						Half the rated set current up to 24V	
Bulk	5000mA(up to 14.4V)	7000mA (up to 14.4V)	10,000mA (up to 14.4V)	12,000mA (up to 14.4V)	15,000mA (up to 14.4V)	20,000mA (up to 14.4V)	5000mA (up to 28.8V)	10,000mA (up to 28.8V)
Absorption	Constant voltage until current drops to 0.75A	Constant voltage until current drops to 1.05A	Constant voltage until current drops to 1.5A	Constant voltage until current drops to 1.8A	Constant voltage until current drops to 2.25A	Constant voltage until current drops to 3A	Constant voltage until current drops to 0.75A	Constant voltage until current drops to 1.5A
Battery Test	Monitors voltage for 90 seconds							
Recondition	Constant current (0.75A) up to 16V for 4 hours.	Constant current (1.05A) up to 16V for 4 hours.	Constant current (1.5A) up to 16V for 4 hours.	Constant current (1.8A) up to 16V for 4 hours.	Constant current (2.25A) up to 16V for 4 hours.	Constant current (3A) up to 16V for 4 hours.	Constant current (0.75A) up to 32V for 4 hours.	Constant current (1.5A) up to 32V for 4 hours.
Float	13.8V also with pulse feature						27.6V also with pulse feature	
Efficiency	App.85%							
Short Protect	Short Circuit Protection							
Polarity Reverse	Polarity Reverse Circuit Protection							
Non battery link Protection	Circuit Protection							
Link battery type mistake	Circuit Protection							
Over Voltage Protection	17.5V						35V	
Thermal Protect	65°C +/-5°C							
Cooling Fan	Automatic temperature controlled							
BATTERY RANGE								
Deep Cycle	35-100Ah	50-140Ah	70-200Ah	80-240Ah	100-300Ah	134-400Ah	35-100Ah	70-200Ah
Types of Batteries	Most types of lead acid batteries including Calcium, GEL and AGM							
Dimension (LxWxH)	190x115x62mm	190x115x62mm	190x115x62mm	215x115x62mm	215x115x62mm	215x115x62mm	215x115x62mm	215x115x62mm
Weight	1.0Kg	1.03Kg	1.1Kg	1.1Kg	1.2Kg	1.2Kg	1.10Kg	1.2Kg

* Internal fuses should only be replaced by qualified electrical appliance repairer

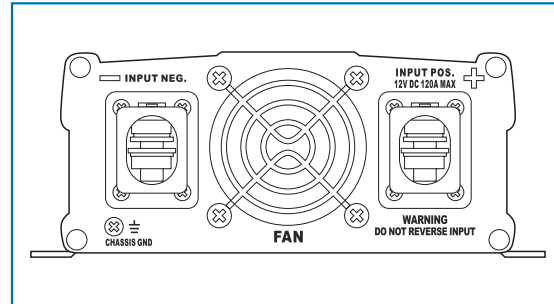
PSI PURE SINE WAVE INVERTER

DC TO AC

FUNCTION & CHARACTERISTIC

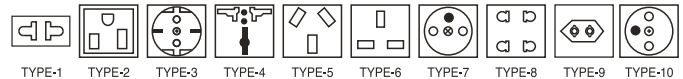
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

INPUT PLUG



CE
CB
RoHS

AC OUTPUT SOCKET



PSI300-12



PSI500-12 PSI600-12 PSI800-12



PSI1000-12 PSI1200-12 PSI1500-12




PSI2000-12 PSI3000-12



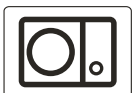
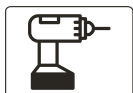
REMOTE CONTROL



PURE SINE WAVE INVERTER SPECIFICATION

IDEAL	Model	PSI300-12	PSI500-12	PSI600-12	PSI800-12	PSI1000-12	PSI1200-12	PSI1500-12	PSI2000-12	PSI3000-12
Input Voltage	12VDC Battery / Vehicle (10-15VDC)									
Input Current (Max DC Amps)	35A	60A	75A	100A	120A	150A	180A	240A	375A	
Continuous Power (Watts)	300W	500W	600W	800W	1000W	1200W	1500W	2000W	3000W	
Peak Power (Watts)	600W	1000W	1200W	1600W	2000W	2400W	3000W	4000W	6000W	
Standby Current	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.5A	≤0.6A	≤1.2A	≤1.4A
Output Voltage	115V AC or 230V AC									
Frequency	50Hz or 60Hz +/-5% Crystal Controlled									
Output Regulation	+/-5% Intelligent PWM									
USB Output Voltage	5.0V DC , 2.4A									
Output Waveform	Pure Sine Wave -  -									
Low Battery-Voltage Alarm (Volts)	10.5+/-0.5V DC									
Low Battery-Voltage Shutdown (Volts)	10+/-0.5V DC									
Efficiency	85~90%									
Thermal Protection	65°C+/-5 °C									
Remote Control	✗					✓				
Overload	Shut Down & Alarm									
Battery Polarity Reverse	By Fuse (Internal)									
Output Short	Output Short Circuit Protection									
With Cooling Fan	Yes Auto-operation fan (temperature or load)									
Replaceable Fuse	35Ax1	30Ax2	35Ax2	30Ax3	35Ax4	40Ax4	35Ax6	40Ax6	40Ax8	
Dimension (L×W×H) mm	216x144x68	246x144x68	246x144x68	254x144x68	316x190x78	316x190x78	376x190x78	370x240x100	440x240x100	
Weight	0.86Kg	1.07Kg	1.07Kg	1.18Kg	2.14Kg	2.14Kg	2.67Kg	4.09Kg	5.64Kg	

WITH THIS " INVERTER " YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!



WARNING: To prevent fire or shock hazard do not expose this appliance to rain or moisture

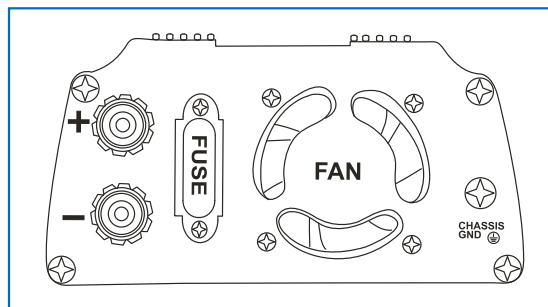
IV MODIFIED SINE WAVE INVERTER

DC TO AC

FUNCTION & CHARACTERISTIC

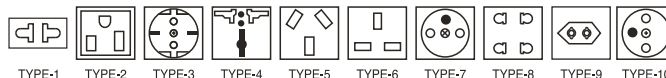
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

INPUT PLUG



CE
RoHS

AC OUTPUT SOCKET



IV-150



IV-175 IV-200




IV-250



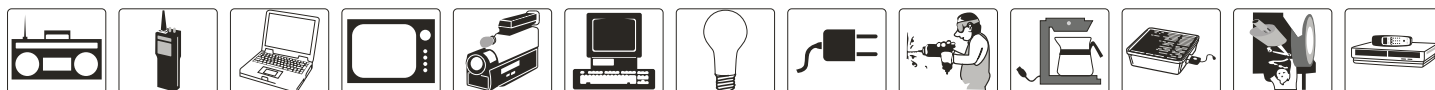
IV-300



MODIFIED SINE WAVE INVERTER SPECIFICATION

IDEAL	Model	IV-150	IV-175	IV-200	IV-250	IV-300
Output Power (Continuous Watts)		150	175	200	250	300
Output Power (Peak Watts)		300	350	400	500	600
Nominal Input Voltage (DC)		12V \approx , (10~15V) / 24V \approx , (20~30V)				
Nominal Output Voltage (AC)		115V AC or 230V AC				
USB Output Voltage (DC)		5.0V \approx , 500mA				
Frequency		50Hz or 60Hz +/-5% Crystal Controlled				
Output Regulation		+/-0.5% Intelligent Pwm				
Output Waveform		Modified Sine Wave 				
Low Battery-voltage Alarm (Volts)		10.5+/-0.5V \approx / 21+/-1V \approx				
Low Battery-voltage Shutdown (Volts)		10+/-0.5V \approx / 21+/-1V \approx				
Efficiency		85~90%				
Thermal Protection		65°C+/-5°C				
Overload		Shut Down & Alarm				
Battery Polarity Reverse		By Fuse				
Output Short		Output Short Circuit Protection				
With Cooling Fan		NO	Yes	Yes	Yes	Yes
AC Outlet		1 AC Outlet	U.S.A. Type:2AC Outlets		European Type:1AC Outlets	
Replaceable Fuse (12V DC)		20A	20A	25A	30A	40A
Replaceable Fuse (24V DC)		10A	10A	15A	15A	20A
Product Dimension(LxWxH)cm		15x10.8x5.1	15x10.8x5.1	15x10.8x5.1	15x10.8x5.1	15x10.8x5.1
Weight		0.6kg	0.6kg	0.6kg	0.7kg	0.7kg
QTY (PCS)		10	10	10	10	10
Carton Measurement(cm)		44x18.3x42.8	44x18.3x42.8	44x18.3x42.8	44x18.3x42.8	44x18.3x42.8
Container 20FT(PCS)		8130	8130	8130	8130	8130

WITH THIS " INVERTER " YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!



WARNING: To prevent fire or shock hazard do not expose this appliance to rain or moisture

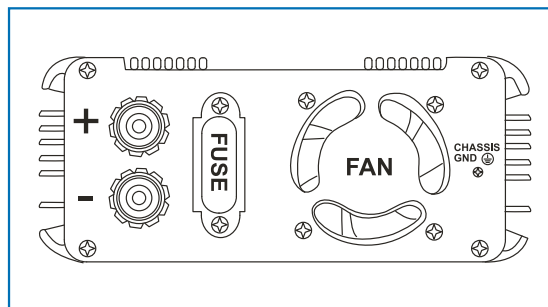
PI MODIFIED SINE WAVE INVERTER

DC TO AC

FUNCTION & CHARACTERISTIC

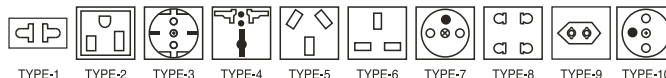
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

INPUT PLUG



CE
RoHS

AC OUTPUT SOCKET



PI-75 PI-100



PI-150 PI-175 PI-200




PI-250 PI-300



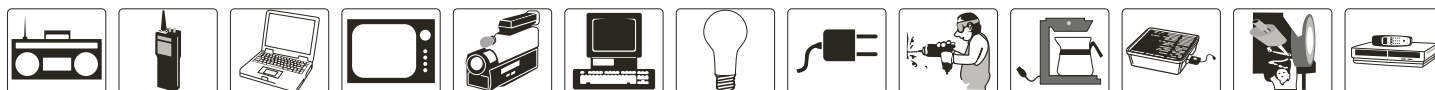
PI-350 PI-400



MODIFIED SINE WAVE INVERTER SPECIFICATION

IDEAL	Model	PI-75	PI-100	PI-150	PI-175	PI-200	PI-250	PI-300	PI-350	PI-400
Output Power (Continuous Watts)		75	100	150	175	200	250	300	350	400
Output Power (Peak Watts)		150	200	300	350	400	500	600	700	800
Nominal Input Voltage (DC)		12V \equiv , (10~15V) / 24V \equiv , (20~30V)								
Nominal Output Voltage (AC)		115V AC or 230V AC								
Frequency		50Hz or 60Hz +/-5% Crystal Controlled								
Output Regulation		+/-0.5% Intelligent Pwm								
Output Waveform		Modified Sine Wave 								
Low Battery-voltage Alarm (Volts)		10.5+/-0.5V \equiv / 21+/-1V \equiv								
Low Battery-voltage Shutdown (Volts)		10+/-0.5V \equiv / 21+/-1V \equiv								
Efficiency		85~90%								
Thermal Protection		65°C+/-5°C								
Overload		Shut Down & Alarm								
Battery Polarity Reverse		By Fuse								
Output Short		Output Short Circuit Protection								
With Cooling Fan		NO	NO	NO	NO	NO	Yes	Yes	Yes Auto-operation fan (temperature or load)	
AC Outlet		1 AC Outlet		U.S.A. Type:2AC Outlets			European Type:1AC Outlets			
Replaceable Fuse (12V DC)		10A	15A	20A	20A	25A	30A	40A	40A	2x25A
Replaceable Fuse (24V DC)		5A	8A	10A	10A	15A	15A	20A	20A	2x15A
Product Dimension(LxWxH)cm		11.6x8x5	11.6x8x5	15x12.5x5.2	15x12.5x5.2	15x12.5x5.2	15x12.5x5.2	15x12.5x5.2	17x12.5x5.2	17x12.5x5.2
Weight		0.28Kg	0.28Kg	0.55Kg	0.70Kg	0.70Kg	0.71Kg	0.75Kg	0.76Kg	0.87Kg
QTY (PCS)		20	20	10	10	10	10	10	10	10
Carton Measurement(cm)		30.5x30x34	30.5x30x34	44x18.3x42.8	44x18.3x42.8	44x18.3x42.8	44x18.3x42.8	44x18.3x42.8	45x18.3x45	45x18.3x45
Container 20FT(PCS)		18000	18000	8130	8130	8130	8130	8130	7560	7560

WITH THIS " INVERTER " YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!



WARNING: To prevent fire or shock hazard do not expose this appliance to rain or moisture

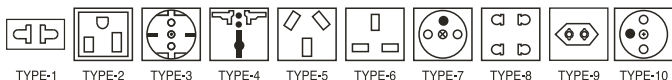
PI MODIFIED SINE WAVE INVERTER

DC TO AC

FUNCTION & CHARACTERISTIC

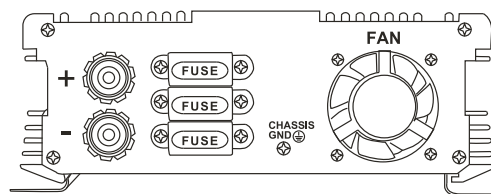
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

AC OUTPUT SOCKET

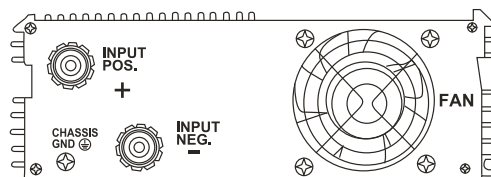


INPUT PLUG

PI-500~600



PI-800~1500



CE
RoHS



PI-500 PI-600



PI-800










PI-1000 PI-1200



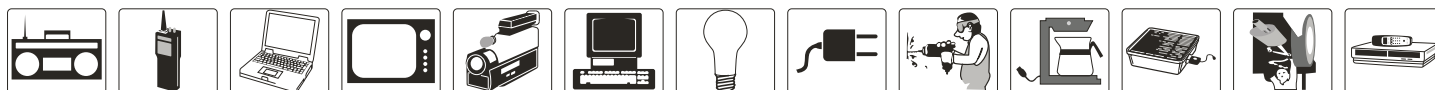
PI-1500



MODIFIED SINE WAVE INVERTER SPECIFICATION

IDEAL	Model	PI-500	PI-600	PI-800	PI-1000	PI-1200	PI-1500
Output Power (Continuous Watts)		500	600	800	1000	1200	1500
Output Power (Peak Watts)		1000	1200	1600	2000	2400	3000
Nominal Input Voltage (DC)		12V  , (10~15V) / 24V  , (20~30V)					
Nominal Output Voltage (AC)		115V AC or 230V AC					
Frequency		50Hz or 60Hz +/-5% Crystal Controlled					
Output Regulation		+/-0.5% Intelligent Pwm					
Output Waveform		Modified Sine Wave 					
Low Battery-voltage Alarm (Volts)		10.5+/-0.5V  / 21+/-1V 					
Low Battery-voltage Shutdown (Volts)		10+/-0.5V  / 21+/-1V 					
Efficiency		85~90%					
Thermal Protection		65°C+/-5°C					
Overload		Shut Down & Alarm					
Battery Polarity Reverse		By Fuse					
Output Short		Output Short Circuit Protection					
With Cooling Fan		Yes Auto-operation fan (temperature or load)					
AC Outlet		U.S.A.Type:2AC Outlets European Type:1AC Outlet		U.S.A. Type:2AC Outlets		European Type:2AC Outlets	
Replaceable Fuse (12V DC)		3x20A	3x25A	4x25A	6x20A	6x25A	9x20A
Replaceable Fuse (24V DC)		3x10A	3x15A	4x15A	6x10A	6x15A	9x10A
Product Dimension(LxWxH)cm		15.5x16.4x6.2	15.5x16.4x6.2	26x16.4x6.2	26x19.8x7	26x19.8x7	32x19.8x7
Weight		1.75Kg	1.8Kg	2.4Kg	3.6Kg	3.8Kg	4.5Kg
QTY (PCS)		6	6	6	4	4	4
Carton Measurement(cm)		53.5x28x27.5	53.5x28x27.5	50.5x37x40.5	55.5x38.5x31	55.5x38.5x31	55x45x30.5
Container 20FT(PCS)		4080	4080	2190	1692	1692	1484

WITH THIS " INVERTER " YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!



WARNING: To prevent fire or shock hazard do not expose this appliance to rain or moisture

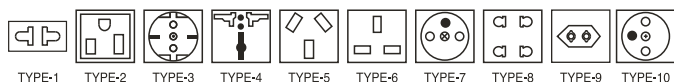
PI MODIFIED SINE WAVE INVERTER

DC TO AC

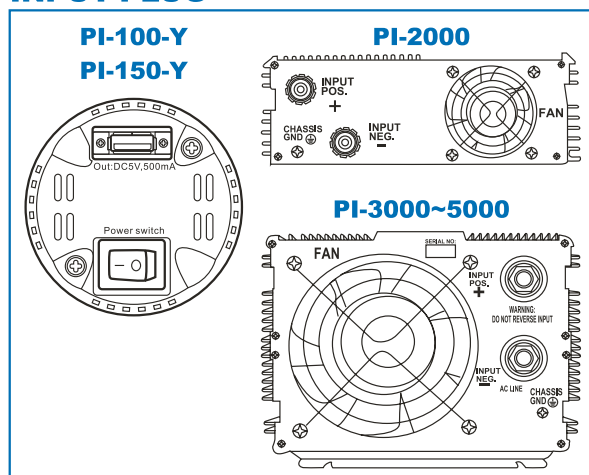
FUNCTION & CHARACTERISTIC

1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

AC OUTPUT SOCKET



INPUT PLUG



CE
RoHS



PI-100-Y PI-150-Y



PI-2000




PI-3000



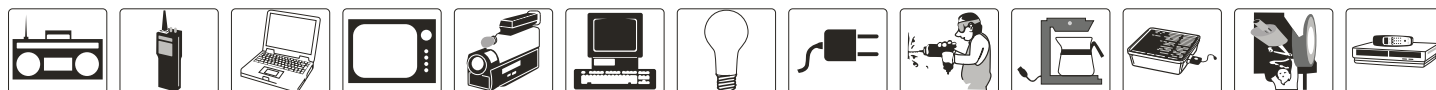
PI-4000 PI-5000



MODIFIED SINE WAVE INVERTER SPECIFICATION

IDEAL	Model	PI-2000	PI-3000	PI-4000	PI-5000	PI-100-Y	PI-150-Y
Output Power (Continuous Watts)		2000	3000	4000	5000	100	150
Output Power (Peak Watts)		4000	6000	8000	10000	200	300
Nominal Input Voltage (DC)		12V \equiv , (10~15V) / 24V \equiv , (20~30V)					
Nominal Output Voltage (AC)		115V AC or 230V AC					
USB Output Voltage (DC)							5.0V \equiv , 500mA
Frequency		50Hz or 60Hz +/-5% Crystal Controlled					
Output Regulation		+/-0.5% Intelligent Pwm					
Output Waveform		Modified Sine Wave 					
Low Battery-voltage Alarm (Volts)		10.5+/-0.5V \equiv / 21+/-1V \equiv					
Low Battery-voltage Shutdown (Volts)		10+/-0.5V \equiv / 21+/-1V \equiv					
Efficiency		85~90%					
Thermal Protection		65°C+/-5°C					
Overload		Shut Down & Alarm					
Battery Polarity Reverse		By Fuse					
Output Short		Output Short Circuit Protection					
With Cooling Fan		Yes Auto-operation fan (temperature or load)					No
AC Outlet		U.S.A. Type: 4AC Outlets		European Type: 2AC Outlets		1	
Replaceable Fuse (12V DC)		12x25A	18x25A	24x25A	30x25A	10A	20A
Replaceable Fuse (24V DC)		12x10A	18x10A	24x10A	30x10A	5A	10A
Product Dimension(LxWxH)cm		43x19.8x7	32x21x15.5	38.5x21x15.5	46x21x15.5	Ø 66x120	Ø 66x150
Weight		5.5Kg	7.2Kg	7.5Kg	8.5Kg	0.45 Kg	0.51 Kg
QTY (PCS)		2	2	2	2	10	10
Carton Measurement(cm)		56x28x30	52x42x25	52x47x25	52x54.5x25	40x33.5x29.5	40x33.5x29.5
Container 20FT(PCS)		1192	1026	916	790	7500	7500

WITH THIS " INVERTER " YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!



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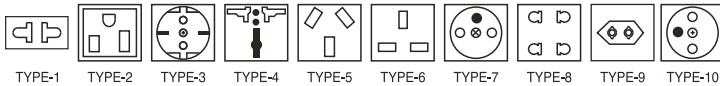
PIC INVERTER WITH CHARGER

DC TO AC

FUNCTION & CHARACTERISTIC

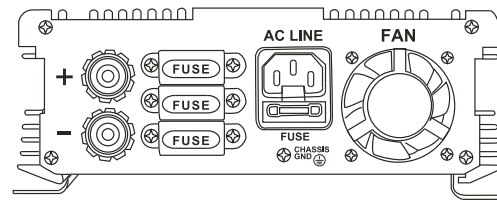
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

AC OUTPUT SOCKET

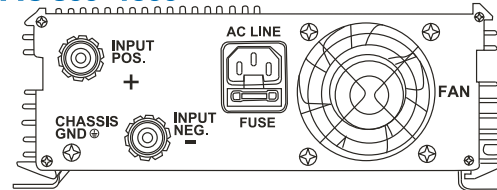


INPUT PLUG

PIC-500~600



PIC-800~1500



CE
RoHS



PIC-500 PIC-600



PIC-800



PIC-1000 PIC-1200



PIC-1500



INVERTER & CHARGER SPECIFICATION

IDEAL Model		PIC500	PIC600	PIC800	PIC1000	PIC1200	PIC1500
INVERTER	DC Input Voltage (Rated)	12V DC, (10-15V) / 24V DC, (20-30V)					
	AC Output Voltage	230V AC or 115V AC					
	Output Frequency	50Hz or 60Hz					
	Output Regulation	+/-5% Intelligent Pwm					
	Output Power (Continuous Watts)	500W, 2.2A	600W, 2.7A	800W, 3.5A	1000W, 4.4A	1200W, 5.3A	1500W, 6.5A
	Output Power (Peak Watts for 0.5 sec)	1000W	1200W	1600W	2000W	2400W	3000W
	Output Waveform	Modified Sine Wave					
	Low Battery-Voltage Alarm (Volts)	10.5V, +/-0.5 V / 21V, +/-0.5V					
	Low Battery-Voltage Shutdown (Volts)	10V, +/-0.5 V / 20V, +/-0.5V					
	Thermal Shutdown	65°C +/-5°C					
	Efficiency	85-90%					
	Cooling Fan	Automatic temperature controlled					
	Overload	Shut Down & Alarm					
	Battery Polarity Reverse	By Fuse					
	Output Short	Output Short Circuit Protection					
	Replacement Fuse	Standard Auto Blade Fuse					
	Fuse Quantity & Size (12V)	3x20A	3x25A	4x25A	6x20A	6x25A	9x20A
	Fuse Quantity & Size (24V)	3x10A	3x15A	4x15A	6x10A	6x15A	9x10A
	Fuse Location	External	External	Internal*	Internal*	Internal*	Internal*
	Connection Cable	6.0mm ² / 900mm	6.0mm ² / 900mm	10.0mm ² / 1100mm	16mm ² / 1100mm	16mm ² / 1100mm	25mm ² / 1100mm
CHARGER	Ideal battery size (12V Inverter)	50-130Ah	50-130Ah	75-250Ah	75-250Ah	75-300Ah	85-400Ah
	Ideal battery size (24V Inverter)	24-75 Ah	24-75 Ah	40-130 Ah	40-130 Ah	40-150 Ah	50-200 Ah
	Rated Input	230V AC / 110V AC					
	Input Frequency	50Hz or 60Hz					
	Rated Output (12V Charger)	12V DC, 5000mA	12V DC, 5000mA	12V DC, 5000mA	12V DC, 10,000mA	12V DC, 10,000mA	12VDC, 10,000mA
	Rated Output (24V Charger)	24V DC, 5000mA	24V DC, 5000mA	24V DC, 5000mA	24V DC, 5000mA	24V DC, 5000mA	24VDC, 5000mA
	Minimum Start Voltage	4.5V / 9V					
	Current Fuse Rating (Internal)	250V AC, F2.5A	250V AC, F2.5A	250V AC, F3.15A	250V AC, F3.15A	250V AC, F3.15A	250VAC, F3.15A
	Current Fuse Rating (External)	250V AC, T10.0A	250V AC, T10.0A	250V AC, T10.0A	250V AC, T10.0A	250V AC, T10.0A	250VAC, T10.0A
	Fuse Quantity & Size	5x20mm	5x20mm	5x20mm	5x20mm	5x20mm	5x20mm
	Type	3 Stage automatic					
	Charge Control (12V Charger)	Bulk 5000mA / 10,000mA (up to 14.7V) / Absorption 14.4V / Float 13.8V					
	Charge Control (24V Charger)	Bulk 5000mA (up to 29.4V) / Absorption 28.8V / Float 27.6V					
	Thermal Protect Ion (fan ON)	65°C +/-5°C					
	Efficiency	App.85%					
	Battery Type	For charging 12V / 24Vlead acid batteries ONLY					
	Performance	Micro-processing switching mode					
	Input Short	Input Short Circuit Protection					
	Output Short	Output Short Circuit Protection					
	Output Polarity Reverse	Output Polarity Reverse Circuit Protection					
	Automatic Switch / Transfer Time	AC Line to Inverter, Inverter to AC Line / Transfer Time 10ms					
	Dimension (L×W×H)	255x212x67mm	255x212x67mm	360x212x67mm	365x242x76mm	365x242x76mm	415x242x76mm
	Weight	2.5Kg	2.6Kg	3.2Kg	4.4Kg	4.8Kg	5.2Kg
	Container 20FT(PCS)	2526	2526	1890	1516	1516	1290

* Internal fuses should only be replaced by qualified electrical appliance repairer

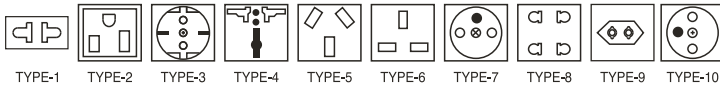
PIC INVERTER WITH CHARGER

DC TO AC

FUNCTION & CHARACTERISTIC

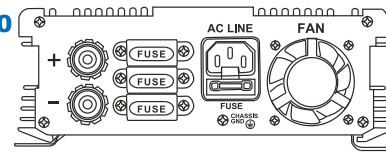
1. Input Voltage Range of 12V DC or 24V DC
2. Output Voltage Range of 115V AC or 230V AC.
3. For use in cars, boats, trucks, trailers and mobile homes.
4. Take the power inverter to camping and get AC power for lamps, radios or TVs.
5. In an emergency such as blackout, attach the power inverter to your car battery or portable battery and get power to run your appliances.
6. **Ultra-Compact Metal Housing**
Small and rugged; stored easily in any tool box, briefcase or glove compartment.
7. **Low-Battery Alarm/Shutdown**
Automatically detects low voltage and shuts down to preserve your battery.
8. **Integrated Fuse Protection**
Protects your battery and power inverter from damage due to outlet overload.
9. **Illuminated On/Off Switch**
Shows power inverter under operating and battery charged sufficiently.

AC OUTPUT SOCKET

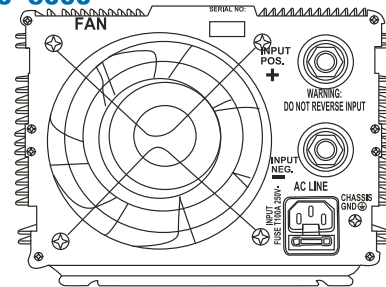


INPUT PLUG

PIC-2000



PIC-3000~5000



CE
RoHS



PIC-2000



PIC-3000



PIC-4000



PIC-5000



INVERTER & CHARGER SPECIFICATION

IDEAL		Model	PIC2000	PIC3000	PIC4000	PIC5000
INVERTER	DC Input Voltage (Rated)	12V DC, (10-15V) / 24V DC, (20-30V)				
	AC Output Voltage	230V AC or 115V AC				
	Output Frequency	50Hz or 60Hz				
	Output Regulation	+/-5% Intelligent Pwm				
	Output Power (Continuous Watts)	2000W, 8.7A	3000W, 13.1A	4000W, 17.4A	5000W, 21.8A	
	Output Power (Peak Watts for 0.5 sec)	4000W	6000W	8000W	10,000W	
	Output Waveform	Modified Sine Wave				
	Low Battery-Voltage Alarm (Volts)	10.5V, +/-0.5 V / 21V, +/-0.5V				
	Low Battery-Voltage Shutdown (Volts)	10V, +/-0.5 V / 20V, +/-0.5V				
	Thermal Shutdown	65°C +/-5°C				
	Efficiency	85-90%				
	Cooling Fan	Automatic temperature controlled				
	Overload	Shut Down & Alarm				
	Battery Polarity Reverse	By Fuse				
	Output Short	Output Short Circuit Protection				
	Replacement Fuse	Standard Auto Blade Fuse				
	Fuse Quantity & Size (12V)	12x25A	18x25A	24x25A	30x25A	
	Fuse Quantity & Size (24V)	12x10A	18x10A	24x10A	30x10A	
	Fuse Location	External	External	Internal*		
	Connection Cable	25mm ² / 1100mm	35mm ² / 1100mm	50mm ² / 1100mm	70mm ² / 1100mm	
Ideal battery size (12V Inverter)	85-400Ah	100-500Ah	150-600Ah	200-700Ah		
Ideal battery size (24V Inverter)	50-200Ah	65-250Ah	75-200Ah	100-350Ah		
CHARGER	Rated Input	230V AC / 110V AC				
	Input Frequency	50Hz or 60Hz				
	Rated Output (12V Charger)	12V DC, 20,000mA	12V DC, 20,000mA	12V DC, 20,000mA	12V DC, 20,000mA	
	Rated Output (24V Charger)	24V DC, 10,000mA	24V DC, 10,000mA	24V DC, 10,000mA	24V DC, 10,000mA	
	Minimum Start Voltage	4.5V / 9V				
	Current Fuse Rating (Internal)	250V AC, F3.15A	250V AC, F3.15A	250V AC, F3.15A	250V AC, F3.15A	
	Current Fuse Rating (External)	250V AC, T10.0A	250V AC, T10.0A	250V AC, T10.0A	250V AC, T10.0A	
	Fuse Quantity & Size	5x20mm	5x20mm	5x20mm	5x20mm	
	Type	3 Stage automatic				
	Charge Control (12V Charger)	Bulk 20,000mA (up to 14.7V) / Absorption 14.4V / Float 13.8V				
	Charge Control (24V Charger)	Bulk 10,000mA (up to 29.4V) / Absorption 28.8V / Float 27.6V				
	Thermal Protect Ion (fan ON)	65°C +/-5°C				
	Efficiency	App.85%				
	Battery Type	For charging 12V / 24V lead acid batteries ONLY				
	Performance	Micro-processing switching mode				
	Input Short	Input Short Circuit Protection				
	Output Short	Output Short Circuit Protection				
	Output Polarity Reverse	Output Polarity Reverse Circuit Protection				
	Automatic Switch / Transfer Time	AC Line to Inverter, Inverter to AC Line / Transfer Time 10ms				
	Dimension (L×W×H)	525x242x76mm	440x210x156mm	510x210x156mm	510x210x156mm	
Weight	6.5Kg	8.5Kg	9.5Kg	11.3Kg		
Container 20FT(PCS)	976	1026	916	916		

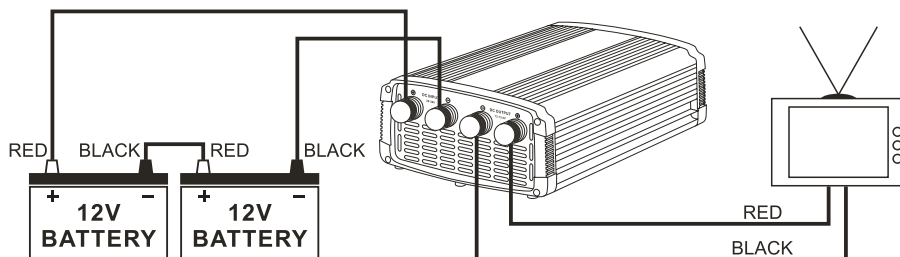
* Internal fuses should only be replaced by qualified electrical appliance repairer

PV DC TO DC CONVERTER

CONVERTS 24 VOLT DC INTO 12 VOLT DC POWER

SWITCHMODE

1. INPUT POLARITY REVERSE: DIODE PROTECTION
2. OUTPUT POLARITY REVERSE: CIRCUIT PROTECTION
3. OUTPUT SHORT: CIRCUIT PROTECTION
4. OVER HEATING: CIRCUIT PROTECTION
5. OVER LOAD: CIRCUIT PROTECTION



CE
RoHS



PV2412-6



PV2412-10



PV2412-20 PV2412-30 PV2412-40



PV2412-50 PV2412-60



PV2412-100

DC TO DC CONVERTER **PV**

CONVERTS 24 VOLT DC INTO 12 VOLT DC POWER

SPECIFICATIONS

P/No.	PV2412-6	PV2412-10	PV2412-20	PV2412-30	PV2412-40	PV2412-50	PV2412-60	PV2412-100
Input Voltage	20-30V	20-30V	20-30V	20-30V	20-30V	20-30V	20-30V	20-30V
Output Voltage	12-13.8V	12-13.8V	12-13.8V	12-13.8V	12-13.8V	12-13.8V	12-13.8V	12-13.8V
Output Power	6Amp (Continuous)	10Amp (Continuous)	20Amp (Continuous)	30Amp (Continuous)	40Amp (Continuous)	50Amp (Continuous)	60Amp (Continuous)	100Amp (Continuous)
Output Power	10Amp(Max)	15Amp(Max)	30Amp(Max)	45Amp(Max)	60Amp(Max)	70Amp(Max)	80Amp(Max)	130Amp(Max)
Standby Current	≤15mA	≤20mA	≤70mA	≤80mA	≤80mA	≤90mA	≤90mA	≤110mA
Input Fuse	7.5A	10A	20A	30A	40A	2x30A	2x40A	4x30A
Efficiency	Fuse Location Input			85~90%				
Thermal Protection	65°C +/-5 °C							
Connection Cable	1.5mm²/900mm	2.0mm²/900mm	2.5mm²/900mm	4.0mm²/900mm	6.0mm²/900mm	10mm²/900mm	12mm²/900mm	20mm²/900mm
Fuse Location	Internal		External			Internal		
Cooling Fan	No		Automatic temperature controlled					
Input Polarity Reverse	Diode Protection							
Output Polarity Reverse	Circuit Protection							
Output Short	Circuit Protection							
Over Heating	Circuit Protection							
Over Load	Circuit Protection							
Dimension (L x W x H)	88x87x42mm	126x87x42mm	182x115x62mm	222x115x62mm	222x115x62mm	275x165x79mm	275x165x79mm	365x165x79mm
Weight	0.25Kg	0.40Kg	0.7Kg	0.95Kg	1.0Kg	1.9Kg	1.9Kg	3.1Kg

SCE SCF SCG SOLAR CHARGE CONTROLLER

Controls the power going into your battery from solar panels



SCG 0606 SCG 0808 SCG 1010 SCG 1515

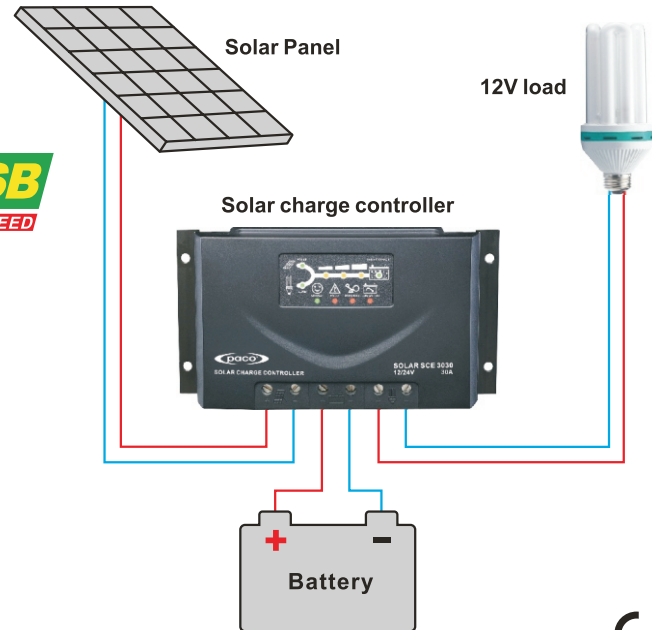


SCF 0606 SCF 0808 SCF 1010 SCF 1515



SCE 1010 SCE 1515 SCE 2020 SCE 3030

CONNECTION:



CE
RoHS



SOLAR CHARGE CONTROLLER *SCE SCF SCG*

The simplicity and high performance of new Solar charge controller make it particularly attractive. At the same time, it offers a modern design and a convenient display, all at an extremely attractive price.

Several LED's various colours emulate a tank display, which gives information on the charge status of the battery. Here, latest algorithms are employed in order to guarantee optimal battery maintenance. The Solar charge controller is equipped with an electronic fuse, thus ensuring the optimal protection. They operate on the serial principle, and separate the solar module from the battery, in order to protect it against overcharging.

The Solar charge controllers are universal charge controllers, which means they can be used with lead-acid batteries or gel batteries without the need for complex configuration settings.

For larger projects, the solar charge controllers can also be equipped with special functions. These include the night light function, and selectable charging plateau and deep-discharge protection voltages.

Functions

- ◆ Low-loss series of controller
- ◆ PWM-controlled constant-voltage charging
- ◆ Battery charging with automatic charging mode selection (float, boost, equal)
- ◆ Automatically adjust to voltage level 12 V/24 V
- ◆ Current-dependent load deactivation
- ◆ Automatic load reactivation
- ◆ Temperature compensation
- ◆ Grounding on the plus side
- ◆ Integrated self test (start voltage 17.0 V)

Display

- ◆ LEDs to display battery charge status
- ◆ LEDs (red/green) to display function status

Electronic protection functions

- ◆ Battery-overload protection
- ◆ Deep-discharge protection
- ◆ Automatic electronic fuse
- ◆ Reverse-polarity protection at module input of the load and the battery connection
- ◆ Reverse-polarity protection of the module
- ◆ Short-circuit protection of the load and the module
- ◆ Good electromagnetic compatibility
- ◆ Prevention of back current into the module
- ◆ Integrated temperature compensation of the end-of-charge voltage (0 °C to +50 °C, factor -4mV/K/cell)

Technical data

Solar charge controller / P/No.	SCF 0606	SCF 0808	SCF 1010	SCF 1515	SCE 1010	SCE 1515	SCE 2020	SCE 3030
	SCG0606	SCG 0808	SCG 1010	SCG 1515				
Max module input short circuit current at 50°C	6A	8A	10A	15A	10A	15A	20A	30A
Max load output current at 50°C	6A	8A	10A	15A	10A	15A	20A	30A
System voltage	12 V / 24 V							
Max. voltage of Solar collector	47 V DC							
Enclosure protection class	IP 32							
Ambient temperature allowed	-25°C to +50°C							
Temperature compensation	-4 mV / K / Zelle							
Thermal Protection	85°C							
Terminal size(fine/single wire)	2.5mm ² / 4mm ²				16/25mm ² =4/6 AWG			
Weight	170g				350g			
Dimensions (LxWxH)	130 x 88 x 39 mm				177x 96 x 43 mm			

Charging voltage	State of charge SOC	12V system	24V system
Deep discharge warning	SOC<40%	11.7V	23.4V
Load switch-off	SOC<30%	11.1V	23.4V
Shift-in	SOC>50%	12.5V	25.0V
Boost charging (14.7V / 29.4V)	SOC<40%	11.7V	23.4V
Equalisation charging (14.4V / 28.8)	SOC<70%	12.4V	24.8V
End-of-charge voltage(float)	SOC>70%	13.9V	27.8V

*Specifications are subjected to change without prior notice.



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