

INSTRUCTION MANUAL

GenPack-100/150W Inverter with pure sine wave - 230V / 50Hz



MEC Model:
 12V / 100 watt → **313-101-100**
 12V / 150 watt → **313-151-100**

MEC Model:
 24V / 100 watt → **313-101-200**
 24V / 150 watt → **313-151-200**

Dear Customer!

We thank you for your trust in us and our products and wish you a lot of happiness with your new inverter. Please read this operating instruction carefully **before** start of operation.

Mainland Energy Conversion LTD

1. Safety Rules and General Warnings

- ATTENTION: 230 volt AC voltage, device is not suitable for children – danger of life.
- Persons, which are not able to use the inverter in a safe way, because of their physical, sensory or mental competence, or because of their inexperience, should not use the inverter without control or instruction of a skilled person. Look that the children don't play with the inverter.
- Use the device only in dry rooms and protect against dust.
- Don't use the device near flammable gases, solvents or vapours. EXPLOSION RISK!
- During operation keep free 5cm round the device for cooling and never cover the vents.
- Also if the inverter is switched off it is possible that for a short time a 230V – AC voltage is at the output.
- No fluids of any kind must get into the device.
- Clean with a dry cloth only.
- In case of obvious damage or malfunction immediately shut off the device and protect against unintended reconnection.
- Repair work must only be accomplished by authorized companies or specialized technical staff.

2. General Information

The inverters of the GenPack 100/150W series are pure sine wave transformers with power electronic at highest level. They are used in cars, trucks, trailer, camper and boats for the current supply of battery chargers, paddles, laptops etc. The inverters have a mechanical on/off switch and the operating state is shown via the green LED. The cooling is quiet and occurs by a performance related fan.

The auto-restart-function starts the inverter new, if there are faulty conditions, like battery voltage too low or too high, overtemperature or overload. After the particular error has been cancelled, the inverter automatically continues normal operation.

3. Special Features

- High frequency combinatorial circuit technology
- Performance related fan control
- Accurate and stable sine through analogue technique
- High efficiency
- Protection against reverse polarity and short-circuit
- Small size, light weight
- USB output
- Auto-restart-function
- LED's for operation
- Switch off at too high outdoor temperature
- Deep discharge protection for battery
- Under and upper voltage control
- Overload protection

4. Scope of delivery

1. Cable with adapter plug for vehicle charger
2. USB socket
3. Fuse
3. Fan
5. Output socket
6. Green power-LED
7. Main on/off switch



5. Operation

1. Make sure that the inverter is switched off (ON/OFF-Switch onto „0“ → OFF);
2. Connect the terminal clamp with a 12V respectively 24V power source;
3. Connect the main plug of the device with the plug of the inverter;
4. Switch on first the inverter and after that the operating device (230V / 50Hz). Please check that the max. power input of the operating device is not higher than the output power of the inverter.

6. Errors and Troubleshooting

Error	Possible reason	Elimination
No output voltage	No connection to the battery	Check connection and cable
	Battery voltage is lower than 11V (12V device) or 22V (24V device)	Load battery
	Thermal overload	Switch off the consumer Cool down the inverter
	Check the cut-out	Change of the cut-out through an expert
Warning during the operation	Battery voltage is lower than 11V (12V device) or 22V (24V device)	Load battery
	Bad connection to the battery	Check connections

Device often switches on / off himself	Max. constant load too high Battery voltage is too low	Check the output Reduce the output Load battery
Device is switching off at switch on the load	Switch on current too high	Check max. output of the inverter

7. Technical Data

Input	
Operating voltage (nominal)	12 / 24 VDC
Input current for 12V device	11.5 - 15.0 VDC
Input current for 24V device	22.0 - 30.0 VDC
Deep discharge protection	10,8 / 21,6 VDC
Over voltage protection	> 15,6 / 31,0 VDC
Overload protection for 100W	>110W
Overload protection for 150W	>160 W
Output	
Output voltage	230 VAC +/-5 %
Frequency	50 Hz +/-0,15
Difference ripple	< 2 %
Energy efficiency	> 90 %
Open-circuit operation	< 6 W
USB	5V 500mA

Thermal	
Temperature range	0 – 40°C
Cooling	Performance-related fan
Overheat protection	>65°C (automat. switch off)
Connections	
Input	Adapter for car body in vehicle
Output	AU or EU socket
Dimensions	
Size (L x W x H)	210 x 115 x 42 mm
Weight	730 g

MEC Model	Input nominal	Output nominal	Rating nominal	short time power peak	Battery Deep discharge protection	DC Fuse
313-101-100	12 VDC	230 VAC / 50 Hz	100 W	200 W	10,8 VDC	15 A
313-101-200	24 VDC	230 VAC / 50 Hz	100 W	200 W	21,6 VDC	10 A
313-151-100	12 VDC	230 VAC / 50 Hz	150 W	300 W	10,8 VDC	25 A
313-151-200	24 VDC	230 VAC / 50 Hz	150 W	300 W	21,6 VDC	15 A

8. Advice of Disposal



It is prohibited to dispose the charger into the house- and residual waste removal (WEEE-Richtlinie 2002/96/EG und EAG-VO) , it must be disposed at the according collection points. For the protection of our environment please inform yourself at your communal administrative agency about your nearest disposal point.



The charger equates to the RoHS-directive 2002/95/EG, for the restriction of the use of certain hazardous substances in electrical and electronic equipment.



9. Disclaimer of Warranty

- Mainland Energy Conversion LTD guarantees replacement or repair of chargers that are recognized as defective within 2 years under common environmental conditions. The validation of the warranty time starts with the delivery date from the manufacturer. Mainland Energy Conversion LTD is limiting the free guaranteeing to working hours and spare parts only.
- For damages caused by non-observance of the operating instructions, inappropriate start up or handling as well as reconstructions and modifications of the device, the warranty claim expires and Mainland Energy Conversion LTD assumes no liability for consequential damage to property or persons!
- Repair work must only be accomplished by authorized companies or professional staff!

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