Bi-directional Inverter

Kinergier Mobile series-12vdc

2KW - 3KW

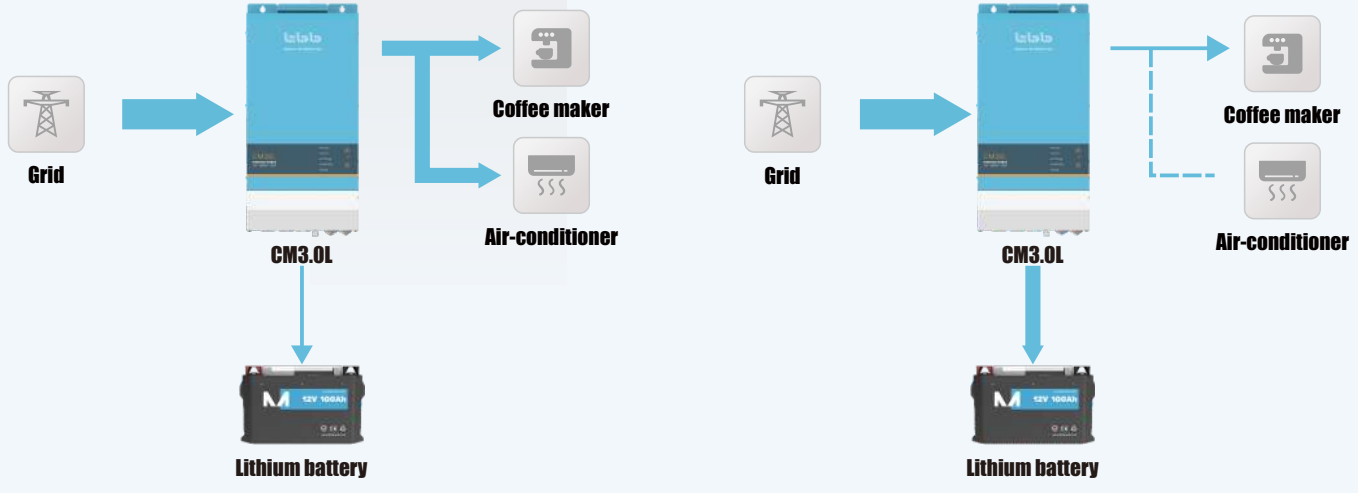
Designed for mission critical application, Kinergier Mobile delivers high reliability, performance and industry leading efficiency. Its distinguishing surge capability makes it capable to power most demanding appliances, such as air conditioner, compressor, vacuum cleaner and various power tools.

Kinergier Mobile is the new generation bi-directional inverter that can be used for generator hybrid system. With innovative function of power assist and power control, it can be used to work with generator or a limited AC source. Kinergier Mobile can automatically adjust its charging current avoiding generator or grid to be overloaded. In case of high power requirement appeared, it can work as the supplement source to generator or grid. As the result, it could dramatically improve the fuel efficiency and decrease the size of generator as well.

With an elegant design monitor MCK, the user is allowed to control the unit and monitor load or battery information remotely. With built-in bluetooth connectivity, the user is also allowed to do configuration by mobile APP.

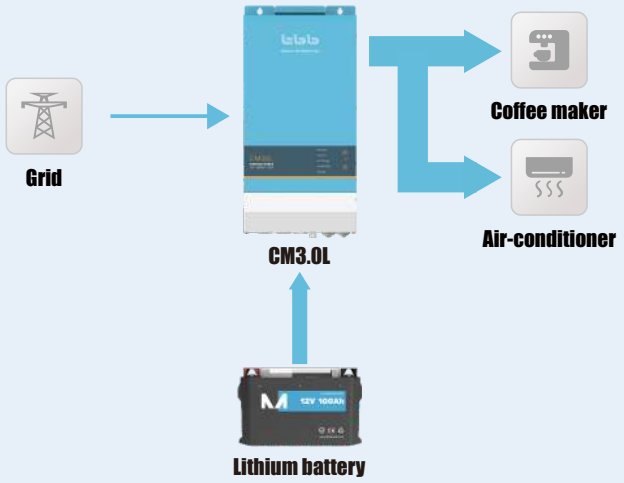
- Pure sine wave output with high efficiency up to 93%.
- Outstanding overload capability for all kinds of inductive load.
- Extremely low status consumption power.
- Power control and power assis function to compose the generator hybrid system.
- Powerful charger for a quick charge.
- TBB premium II battery charging algorithm suitable for various battery chemicals including LPE.
- UPS class transfer speed, 0ms.
- Automatic ON when shore power is connected.
- Built-in ground relay
- Silent design with thermal control fan make it suitable for free camper .
- Fully programmable.
- Mobile APP is available.

Power Control



Upon generator running, Kinergier Mobile could keep generator running at its optimum power level and use only extra power to charge battery.
Upon load power changes, Kinergier Mobile will automatically adjust its charging current to ensure the generator runs at preset optimum power point. This features could greatly improves the fuel efficiency of generators.
Upon working with shore power, inverter charger can adjust its charging current avoiding tripping of circuit breaker.

Power Assist



Upon load power exceeding generator capability or limit of AC supply at campsite, Kinergier Mobile could discharge the battery supplying the load in parallel with generator or shore power. Smaller generator or limited AC supply will be capable of handling big load, especially for inductive load which need high surge.

Model No.	CM2.0L	CM3.0L
Power Assist	Yes	
AC input voltage range (VAC)	175~265	
AC input Frequency range (Hz)	45~65	
AC input Current (transfer switch) (A)	32	

Inverter

Nominal battery voltage (V)	12	
Input voltage range (V)	10.5 ~ 17	
AC output voltage (VAC)	220 /230/ 240Vac ± 2%	
AC output Frequency (Hz)	50 / 60Hz ± 0.1%	
Harmonic distortion	< 2%	
Load Power factor	1.0	
Cont. output power at 25°C (W)	2000	3000
Peak power (30min) at 25°C (W)	2200	3200
Peak power (10 sec) (W)	4000	6000
Cont. output power at 40°C (W)	1800	2700
Maximum efficiency	93%	
Zero load power (W)	12W	16W

Charger

Charge algorithm	TBB premium II multi stage	
Max AC charge current (A)	120	180
Battery types	AGM / GEL / Flooded / OpzV / LFP	

General Data

Transfer time	0ms(<15ms is Weak AC Source Mode)
Remote on - off	Yes
Programmable relay	2X
Protection	a) Output short circuit; b) Overload; c) Battery voltage high / low; d) Temperature high; e) Input voltage out of range / ripple high; f) Fan block;
General purpose com. Port	RS485 (Bluetooth,GPRS,WLAN optional)
Operating temperature range	- 20°C ~ 65°C
Relative humidity in operation	95% without condensation

Mechanical Data

Dimension (mm) (max)	510 x 245 x 135	
Net weight (KGs)	17	21
Cooling	Forced fan	
Protection category	IP20	

Standard

Safety	EN-IEC 62477-1
EMC	EN61000-6-3, EN61000-6-1, EN61000-3-3, EN61000-3-2,ECE R10.05