

## Inverter Charger

# KINERGIER PRO

CK 4KW / 5KW / 6KW / 8KW 230Vac

Paralleled to 24KW single phase;  
72KW three phase  
Compatible with majority of cheap generators  
Power Assist & Power Control



Kinergier Pro is a new generation inverter charger, combined with an inverter, battery charger, and transfer switch into one compact package, allowed to expand its system capacity through parallel and three phase operation up to 9 units. Featuring 0ms UPS transfer time, it is an ideal inverter for powering various mission-critical loads. It is designed for various types of off grid systems including DC Coupled PV system, AC Coupled PV system, or even a combination of both, to maximize the use of PV energy.

Its high surge capability makes it capable to deal with the initial currents of the high-demanding appliances, such as air conditioner, water pump, washing machine, freezer etc. Thanks to its power assist and power control function, it works well with the majority of poor generators. Kinergier Pro can automatically adjust its charging current by taking loads into account to protect the generator from overload. Once the temporary peak power appears, it can also discharge the battery to supply power to compensate the insufficient part of the generator.

- Support AC Coupled PV System, DC Coupled PV System and the combination of both
- High surge capacity for starting up mostly demanding appliances
- Power assist function enables limited AC to power heavy loads
- Ultra-fast 0-2ms transfer time to protect mission-critical loads like server and ATM
- Outstanding overload capability for powering various inductive loads
- Controlled by digital signal processors
- Support parallel and three phase operation up to 9 units
- Compatible with mainstream lithium battery brands
- Two AC outputs for load management in the event of battery operation
- Harmonic distortion < 2%; High efficiency up to 96%
- Extremely low status consumption power
- TBB premium II battery charging management
- Built-in battery SOC estimation
- Support automatically start or stop the generator (AGS Function) according to load power, battery voltage/SOC, time period
- Fully programmable
- Support remote monitoring via NOVA APP & WEB

Model No :	CK4.0M	CK5.0M	CK4.0S	CK5.0S	CK6.0S	CK8.0S
Product topology	Transformer based					
Power assist	Yes					
Feed-in to grid	Yes					
AC input voltage range (VAC)	175~265					
AC input Frequency range (Hz)	45~65					
AC input Current (transfer switch) (A)	50					

## Inverter

Nominal battery voltage (VDC)	24		48			
Input voltage range (VDC)	21~34		42~68			
AC output voltage(VAC)	220/230/240 ± 2%					
AC output Frequency(Hz)	50/60 ± 0.1%					
Harmonic distortion	< 2%					
Load Power factor	1.0					
Cont. output power at 25°C (VA)	4000	5000	4000	5000	6000	8000
Peak power (30min) (W)	4000	5000	4000	5000	6000	8000
Cont. output power at 25°C (W)	3600	4500	3200	4000	4800	6500
Peak power (10 sec) (W)	8000	10000	8000	10000	12000	16000
Cont. output power at 40°C (W)	2800	3600	2800	3700	4200	5600
Surge	300%					
Maximum efficiency	94%		96%			
Zero load power (W)	18	23	17	19	20	26

## Charger

Charge voltage 'absorption' (VDC)	28.8		57.6			
Charge voltage 'float' (VDC)	27.6		55.2			
Battery types	AGM / GEL / OPzV / Lead-Carbon / Li-ion / Flooded / Traction / TBB SUPER-L					
Max AC charge current (A)	120	150	55	70	80	110
Temperature compensation	Yes					

## General Data

Main Output (AC Out1) Current (A)	50					
Auxiliary Output (AC Out2) Current (A)	32					
Transfer time	0ms (< 15ms in Weak AC source Mode)					
Remote on-off	Yes					
Programmable relay	2x					
Protection	a) output short circuit, b) overload, c) battery voltage too high, d) battery voltage too low, e) temperature too high, f) input voltage out of range, g) input voltage ripple too high, h) Fan block					
CAN Bus communication port	For parallel and three phase operation, remote monitoring and system integration					
General purpose com. Port	RS485 (GPRS, WLAN optional with kinergy)					
Operating temperature range	-20°C~60°C					
Relative humidity in operation	95% without condensation					
Altitude (m)	2000					

## Mechanical Data

Dimension (mm) (max)	530x285x185					
Net Weight (kg)	33	36	30	33	35	40
Cooling	Forced fan					
Protection category	IP20					

## Standard

Safety	EN-IEC 62477-1 CEC (Listed)					
EMC	EN61000-6-2, EN61000-6-4, EN61000-3-11, EN61000-3-12					