

### Overview

The brand new Kirin series is an inverter/charger that supports utility charging, oil generator charging, solar charging, dual output from utility or inverter, multiple operating modes, and smart energy management. It supports parallel operation for multiple units in single phase or three phase. The inverter with power of 3.5KW and 5.5KW perfectly suits residential applications, schools, health facilities, government buildings, and areas where the electricity is unstable.

### Features

- Applicable for pure off grid / backup power / self-consumption
- PV input voltage range: 80Vdc-500Vdc
- PV input current up to 32A
- Supports battery mode & non battery mode
- Battery & PV reverse polarity protection
- Dual pure sine wave output
- Supports single-phase or three-phase parallel operation (up to 16 units)
- Sleep mode triggered by low power output or low battery voltage
- Independent BMS communication interface
- Isolated RS485 interface: Connects with Bluetooth, WiFi, 4G, etc.
- Optional 320 x 480 high-resolution color LCD screen or monochrome screen
- Historical data recording function, storage capacity of 25000 records
- Comprehensive electronic protection ensures safer and more stable operation
- IP20 enclosure design with anti-dust kit



# Technical Specifications

Model	KR3522-1250P20C	KR3542-0650P20C	KR5542-1050P20C	KR6042-1250P20C
<b>Utility Input</b>				
Utility Input Voltage	176VAC to 264VAC (Default), 90VAC to 285VAC (Configurable)			
Utility Input Frequency	45Hz ~ 65Hz			
Max. Utility Charging Current	110A	60A	100A	
Switch Response Time	Switch Response Time – Inverter to Utility: 10ms Switch Response Time – Utility to Inverter (when the load power is higher than 100W): 20ms			
<b>Inverter output</b>				
Inverter Rated Power (@30°C)	3500W	3500W	5500W	6000W
3-second Transient Surge Output Power	7000W	7000W	8500W	12000W
Inverter Output Voltage	220/230VAC±3%			
Inverter Frequency	50/60Hz±0.2%			
Output Voltage Waveform	Pure sine wave			
Load Power Factor	0.2-1 (VA ≤ Rated output power)			
THDv (@linear load)	≤3% (24V resistive load)	≤3% (48V resistive load)		≤3% (48V resistive load)
Max. Load Efficiency	92%			
Max. Inverter Efficiency	94%			
Max. Main Load	3500W	3500W	5500W	6000W
Max. Second Load	3500W	3500W	5500W	6000W
Main Output Cut-Off Voltage	Equal to "UVW (Under Voltage Warning Voltage)"			
Second Output Cut-Off Voltage	Equal to "LVD (Low Voltage Disconnect Voltage)"			
Dual Output Recovery Voltage	Equal to "LVR (Low Voltage Reconnect Voltage)"			
<b>Solar controller</b>				
PV Max. Open-Circuit Voltage	500V (At minimum operating environment temperature) 440V (At 25°C)			
MPPT Voltage Range	85V ~ 450V			
Number of MPPTs	1	1	2	2
Max. Input Current	One way, 16A/way	One way, 16A/way	Two ways, 2x16A	Two ways, 2x16A
PV Max. Short-Circuit Current	One way, 18A/way	One way, 18A/way	Two ways, 2x18A	Two ways, 2x18A
PV Max. Input Power	4200W	4200W	2×3300W	8000W
PV Max. Charging Current	120A	60A	100A	120A
MPPT Max. Efficiency	≥99.5%			
<b>Battery</b>				
Battery Rated Voltage	24VDC	48VDC		
Battery Work Voltage Range	20.4VDC ~ 32.0VDC	40.8VDC ~ 64.0VDC		
Battery Max. Charging Current	120A	60A	100A	120A
<b>Others</b>				
No-load Losses	≤1.5A	≤0.8A	≤1.1A	≤1.1A
	Test condition: Utility, PV and Load are disconnected, AC output is ON, fan stops, @24V input	Test condition: Utility, PV and Load are disconnected, AC output is ON, fan stops, @48V input		Test condition: Utility, PV and Load are disconnected, AC output is ON, fan stops, @48V input
Standby Current	≤1.1A	≤0.6A	≤0.8A	≤0.8A
	Test condition: Utility, PV and Load are disconnected, AC output is OFF, fan stops, @24V input	Test condition: Utility, PV and Load are disconnected, AC output is OFF, fan stops, @48V input		Test condition: Utility, PV and Load are disconnected, AC output is OFF, fan stops, @48V input
Communication with BMS	RS485			
Communication with Portal	RS485			
Parallel Function	Yes, Standard 12 units, Up to 16 units			
Work Temperature Range	-20°C to +50°C (When the environment temperature exceeds 30°C, the actual output power is reduced appropriately)			
Storage Temperature Range	-25°C ~ +60°C			
Enclosure	IP20 (With anti-dust kit)			
Relative Humidity	< 95% (N.C.)			
Altitude	<4000M (If the altitude exceeds 2000 meters, the actual output power is reduced appropriately)			
Certifications and Standards	IEC 62109-1, IEC 62109-2, IEC 61683, IEC 62368			IEC 62109-1. IEC 62109-2. IEC 61683
<b>Mechanical parameters</b>				
Dimension (Length x Width x Height)	590mm × 300mm × 165mm	534mm × 300mm × 165mm	590mm × 300mm × 165mm	590mm × 300mm × 165mm
Mounting Size (Length x Width)	568mm × 245mm	512mm × 245mm	568mm × 245mm	568mm × 245mm
Mounting Hole Size	Φ9mm/Φ10mm			
Net Weight	13.8Kg	12.7Kg	15.5Kg	15Kg