

ALL-IN-ONE HYBRID SYSTEM

High Lights

- Integrated design of inverter and batteries, fashion appearance for the whole system
- UPS level switching, no sense of blackout
- Batteries expandable, up to 80kwh
- Charging and discharging batteries by time, saving your electricity bills
- Modular design, easy for maintenance
- Unique BMS technology, batteries more reliable and more safe
- Easy setup and monitoring via App



Inverter Model	Z3115KD48-120
Output (Grid)	
Nominal AC output power (W)	5000
Max. AC output apparent power (VA)	5500
Max.AC output power (PF=1) (W)	5500
Max. AC output current (A)	25
Rated AC voltage (V)	220
Rated grid frequency (Hz)	50/60
THDI	<3%
Output (Back up)	
Nominal output voltage (V)	230
Nominal output frequency (Hz)	50/60
Nominal output power (W)	5000
Nominal output current (A)	21.7
Transfer time (ms)	10(typ) / 20(max)
THDV	<3% @100% R Load
Input (PV)	
MAX PVPower (W)	9000
Max PV voltage (V)	550
Max input current (input A/input B) (A)	15/15
Max short current (input A/input B) (A)	20/20
Start operating voltage (V)	90
MPPT voltage range @full load (V)	200-480
No.of MPPT trackers	2
String per MPP tracker	1
Input (BAT)	
Compatible battery type	Lithium-ion/Lead-acid
Nominal battery voltage (V)	48
Battery voltage range (V)	40-60
Max. charge/discharge current (A)	120/120
Max. charge/discharge power (W)	5000/5000
Lithium battery charge curve	Self-adaption to BMS
Efficiency	
Max.efficiency (PV to AC)	97%
Max.efficiency (BAT to AC)	94%
Battery Model	B20L51V100
Cell type	LFP
Energy	5.12kWh @0.2C, 25°C
Capacity	100Ah @0.2C, 25°C
Nominal Voltage	51.2V
Charge Voltage	57.6V
Standard Charge Current	20A @25°C
Max. Continuous Charge Current	100A @25°C
Standard Discharge Current	20A @25°C
Max. Continuous Discharge Current	100A @25°C
Discharge Cut-off Voltage	43.2V
Max. parallel	16 units
Cycle Life	≥6000 cycles @80%DOD
Operating temperature	Charge: 0~+60°C Discharge: -20~+60°C
Cover	
Mounting type	Wall mounted
Dimension	1600*545*205mm
Weight	
Protection class	IP20
General Data	
Max. operation altitude (m)	4000 (derating over 2000m)
Noise emission (dB)	<35
Relative humidity (%)	0~100
Cooling concept	Natural Cooling
Display	LED+APP
Communication	CAN

Please refer to inverter and battery specifications for more details.

Zeus Appollo Solar

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SINGLE PHASE HYBRID INVERTER



HIGH YIELD

- Max efficiency 97.3%, Battery efficiency 94%
- Max. Charge / Discharge Current 120A
- Reasonable energy control to increase the proportion of spontaneous use



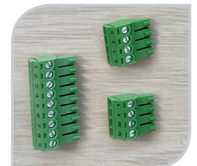
HIGH RELIABILITY

- With BMS system to ensure high battery life
- Natural cooling design



INTELLIGENT MAINTENANCE

- Compatible with lead-acid batteries and lithium battery energy storage systems
- Remote configuration and upgrade



Model	Z31I5KD48-120
Efficiency	
Max. efficiency (PV to AC)	97.3%
Max. efficiency (BAT to AC)	94.0%
Input (PV)	
MAX PV Power (W)	9000
Max PV voltage (V)	550
Max input current (input A/input B) (A)	15/15
Max short current (input A/input B) (A)	20/20
Start operating voltage (V)	90
MPPT voltage range @full load (V)	200-480
No. of MPPT trackers	2
String per MPP tracker	1
Input (BAT)	
Compatible battery type	Lithium-ion/Lead-acid
Nominal battery voltage (V)	48
Battery voltage range (V)	40-60
Max. charge/discharge current (A)	120/120
Max. charge/discharge power (W)	5000/5000
Lithium battery charge curve	Self-adaption to BMS
Output (Grid)	
Nominal AC output power (W)	5000
Max. AC output apparent power (VA)	5500
Max. AC output power (PF=1) (W)	5500
Max. AC output current (A)	25
Rated AC voltage (V)	220
AC voltage range (V)	150-300 (adjustable)
Rated grid frequency (Hz)	50/60
AC frequency range (Hz)	45-55/55-65 (adjustable)
Grid connection	single phase
Power factor	> 0.99 @rated power (adjustable 0.8 LG - 0.8 LD)
THDI	<3%
Output (Back up)	
Nominal output voltage (V)	230
Nominal output frequency (Hz)	50/60
Nominal output power (W)	5000
Nominal output current (A)	21.7
Transfer time (ms)	10(typ) / 20(max)
THDV	<3% @100% R Load
Protection	
Protection category	Class I
DC switch	Support
Anti-islanding protection	Support
AC overcurrent protection	Support
AC short circuit protection	Support
DC reverse connection	Support
Surge Arrester	DC Type III, AC Type III
Insulation detection	Support
Leakage current protection	Support
PV overvoltage category	II
AC overvoltage category	III
General	
Max. operation altitude (m)	4000
Noise emission (dB)	<35
Ingress protection degree	IP65
Operating temperature range (°C)	-25~60
Relative humidity (%)	0~100
Cooling concept	Natural Cooling
Mounting	Wall bracket
Dimensions (W*H*D)	515*450*175mm
Weight (kg)	25
PV connection way	MC4/H4
Battery connection way	Dedicated DC connector
AC connection way (grid & back up)	Dedicated AC connector
HMI & COM	
Display	LED+APP
Communication interface	RS485/CAN(for BMS), RS485, USB, Ethernet, DRM/RS485 (for Meter), Optional: WiFi/GPRS
Certification	
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1
Safety	IEC62109-1&2, IEC62040-1, IEC62477-1
EMC	IEC61000-6-2/3
Warranty (years)	5/10 (optional)

Remarks:

The range of output voltage and frequency may vary depending upon different grid codes. Specifications are subject to change without advance notice.

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HOME ENERGY STORAGE SYSTEM



Simple connection,
saving installation time and cost.



Compatible with RS485,
CAN, RS232 communications.



Fashion appearance, light
weight, smart operation.



Easy to expansion,
maximum 4 battery cabinets parallel.



IP54, modular design,
saving space.



Intelligent residential
energy management system.

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Models	Kratos 5	Kratos 10	Kratos 15	Kratos 20
General Data				
Battery type	LFP			
Battery module	B20L modules B20L48V100/B20L51V100			
Module quantity	1 module	2 modules	3 Modules	4 modules
Nominal voltage	48V/51.2V			
Nominal capacity	100Ah	200Ah	300Ah	400Ah
Nominal energy	4.8KWh/5.12KWh	9.6KWh/10.24KWh	14.4KWh/15.36KWh	19.2KWh/20.48KWh
Max charging/discharging current	1C			
Operating voltage range	42~51V/44.8~54.4V			
System efficiency	0.92			
Self-discharge@25°C	< 2%/month			
Communication	CAN/RS485			
Enclosure protection rating	IP54			
Cooling	Natural cooling			
Scalability	≤ 4 cabinets			
Protection	Over voltage & Under voltage/Over current/Short-circuit/Over temperature & Under temperature protection etc.			
Certification & Safety standard	UL1973, IEC62619, IEC62620, CE, UN38.3			
Dimention (W/H/D)	640mm x 660mm x 350mm		640mm x 1200mm x 350mm	
Weight	65kg/69kg	105kg/110kg	168kg/178kg	207kg/219kg
Environment				
Storage temperature	-10°C ~55°C			
Operating temperature	0°C ~45°C			
Altitude	0~4000m (derating over 2000m)			
Relative humidity	0~95% RH			

Disclaimer:

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B20L SERIES LFP BATTERY MODULES



Easy Installation
& Safety Operation



Perfect Compatibility
& Expandability



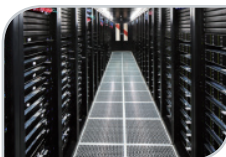
High Performance
& Efficiency



Long-life Lithium
Battery



Household



Telecom base station



Island cottage



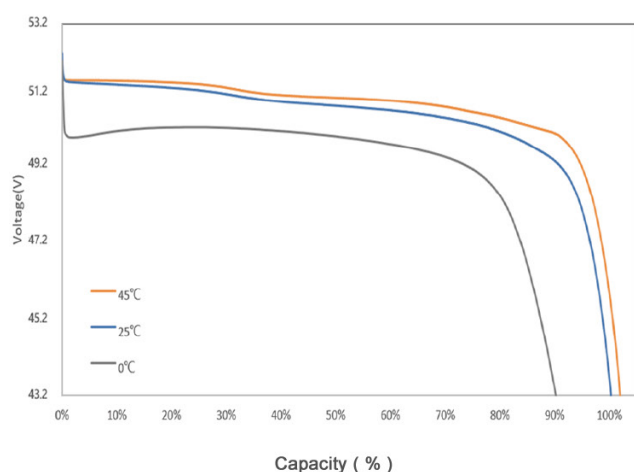
Pasture



Farmhouse

Model	B20L48V100	B20L51V100
Nominal Voltage	48V	51.2V
Capacity	100Ah @0.2C, 25°C	
Energy	4.8kWh @0.2C, 25°C	5.12kWh @0.2C, 25°C
Dimensions (W*D*H)	442*400*130mm	
Weight	39.0±0.5kg	41.0±0.5kg
Charge Voltage	54.0V	57.6V
Standard Charge Current	20A @25°C	
Max. Continuous Charge Current	100A @25°C	
Standard Discharge Current	20A @25°C	
Max. Continuous Discharge Current	100A @25°C	
Discharge Cut-off Voltage	40.5V	43.2V
Operating Temperature	Charge: 0~+60°C Discharge: -20~+60°C	
Storage Duration	Charge: 0~+60°C Discharge: -20~+60°C	
Protection Class	IP20	
Cycle Life	≥6000 cycles @80%DOD	

Discharge Curve @0.2C, Different temp



Cycle Times vs. DOD in HESS Scenario at 35°C

