

# Crystal Plus Na Series

CL Plus 1000Na - CL Plus3000Na  
1~3kVA, 1:1 phase PF 1.0



## SUPER SAFETY

Sodium has less activity than lithium, less dendrites generated inside the cells during high-rate discharge, deep discharge and even over-discharge; The unique ethylene carbon- ate (EC) electrolyte, has better sodium-ion solubility and higher flash-point, both guarantee sodium-ion barely cause thermal runaway; It will barely have smokes, fires, explosion even under worse cases like puncturing, squeezing, over-charge ,over-discharge etc.

## Features

- Output Powe Factor 1.0
- Wide Input Voltage (110V-300V)
- ECO mode for energy saving
- Generator Compatible
- Power Charger up to 12A
- DC start function (Cold Start)
- Input L-N detection function
- Sodium-Ion Batteries
- True On-Line double Conversion
- Super-fast charging fully re charging at minimum 30Min
- Super long Life with up to 2000 cycles life @ 100% DOD

## SUPER HIGH RATE DISCHARGE

Up to 15C discharge rate ,excellent matching the short time & high power backup of UPS

## SUPER LONG LIFE.

2000 cycles at 100% DOD ,equals to LiFePO4, 5 times longer than VRLA

## SUPER STRONG THERMAL TOLERANCE & LOW TEMPERATURE PERFORMANCE

Sodium-ion can work under wider tempera- tures from -40°C- 80°C ,up to 88% capacity retention even under -20°C, >40% more than its lead acid or lithium-ion counterparts

## SUPER FAST RECHARGE

Sodium-ion has much better solubleness and much smaller Stokes diameter in same density electrolytes, thus much better conductivity and > 50% faster recharging rate than its lithium-ion counterpart.



# Technical Specifications:

Model	CL Plus1000 Na	CL Plus2000 Na	CL Plus3000 Na
Capacity	1kVA/1KW	2kVA/2KW	3kVA/3KW
Input			
Nominal Voltage	208/220/230/240VAC		
Voltage Range	100-300VAC		
Frequency	40-70Hz		
Power Factor	> 0.99		
THDi	≤3% (linear load); ≤5% (non-linear load)		
Output			
Nominal Voltage	208/220/230/240VAC		
Voltage Regulation	±1%		
Frequency	50/60Hz±0.1%		
Crest Ratio	3:1		
THDu	≤2% (linear load); ≤5% ( non-linear load )		
Transfer Time	Line mode to battery mode,0ms; inverter to bypass ,4ms (typical)		
Power Factor	1		
Waveform	Pure sine wave		
Efficiency			
Line Mode	91%	92%	
Battery Mode	87.5%(24VDC)	89.5%(48VDC)	≥91.50%
	88.5%(36VDC)	91.5%(72VDC)	
ECO Mode	98%		
Battery(sodium-ion)			
Energy	172Wh	345Wh	460Wh
Charging Time	30min	32min	35min
Battery(Lead acid)-Standard model			
Voltage	24VDC	48VDC	72VDC
Battery Number	9Ah*2pcs	9Ah*4pcs	9Ah*6pcs
Charging Current	1A	1A	1A
Charging Mode	Two/Three-period charging		
Battery(Lead acid)-Long run model			
Voltage	36VDC	72VDC	96VDC
Battery Number	External		
Charging Current	1-12A		
Management			
Intelligent port	RS232/USB port/SNMP card (optional)/Dry contact kit (optional)		
Environment			
Operation Temperature	0-40℃		
Storage temperature	-15~60℃(Battery:0~40℃)		
Relative Humidity	0-95%(non-condensing)		
Noise	< 50dB@1 meter		
Altitude	Up to1000m without derating		
Standard & Certification			
Standard and Approvals	EN/IEC 61000, EN/IEC 62040		
Physical			
Case size(L*W*H)(mm)	145*275*220	145*390*220	190*390*320
Weight(KG)	7.95(sodium) 7.35/9.35(lead acid)	12.3(sodium) 7.6/15.1(lead acid)	15.2(sodium) 10.7/23(lead acid)
Carton size(L*W*H)(mm)	360*233*330	474*233*330	500*285*430