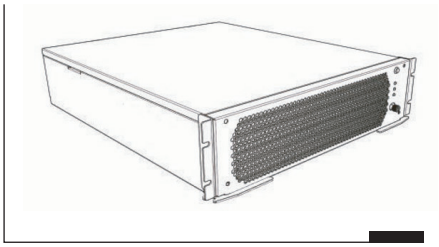
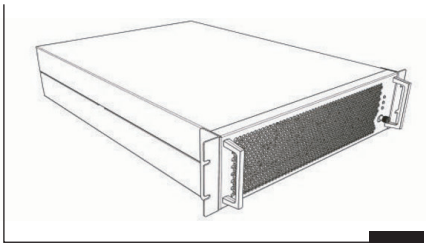
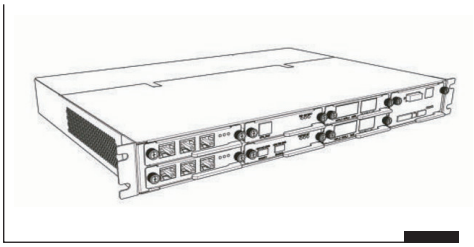
GENEXIS

Advanced Modular UPS

3Ph 40kVA-2.4MVA

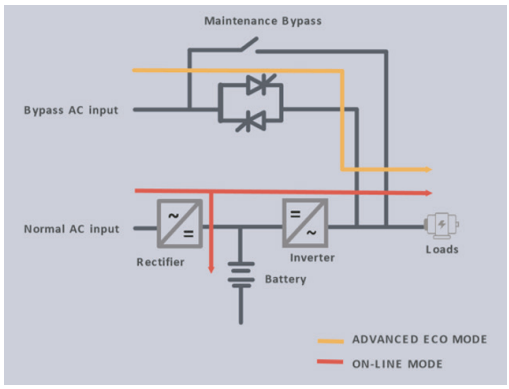






- True Sinewave – Online double conversion, High Frequency UPS
- Advance Eco & active online mode selection, 99% efficiency + 2ms switching time
- Modular design, per 40kVA module in 3U height, ready for expansion
- Hot-swappable modular design, easy to replace the power module, reduce the mean time to repair (MTTR)
- Power module auto-isolate function to avoid trickle down effect downtime
- Dual control card and dual auxiliary power supply ensure continuous system operation and avoid single failure point
- Wide input voltage 138~485VAC
- Built-in bypass switch
- Battery cold start function
- Various battery type selection: Lead Acid, Nickel-Zinc, Lithium LFP, Sodium
- Battery management System
- User-friendly 7-inch and 12-inch LCD touch screen for easy UPS operation
- Datalogger for system monitoring, self-check of fault, abnormal event analysis, and record of the power waveform

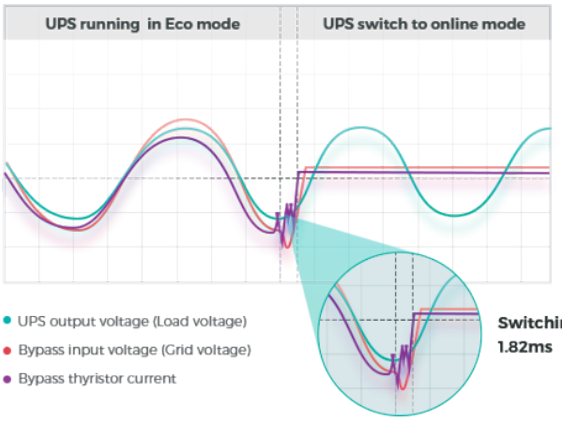
Advanced Feature

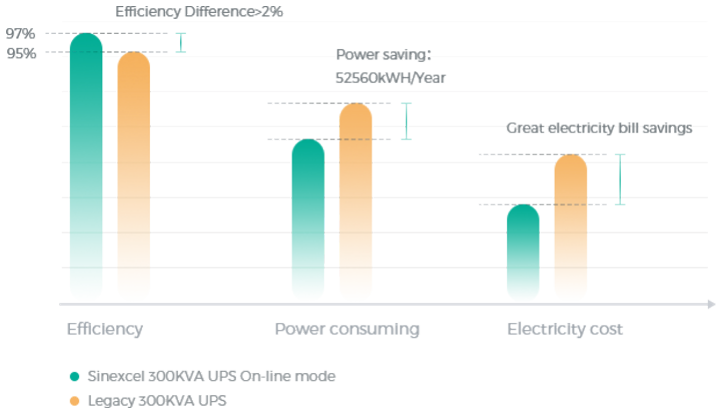


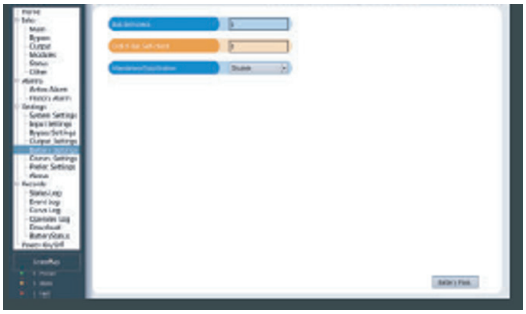
Advanced Eco Mode

Advanced Eco mode reduces power consumption by powering up on only essential modules, while the system continuously maintain power backup in standby.

Switching between Eco mode to full online is <2ms.

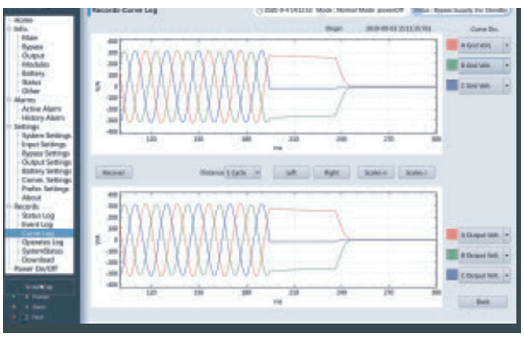






Battery Management System

SOC monitor to reflect remaining capacity of battery.
Charging voltage & current intelligent adjustment according to battery temperature

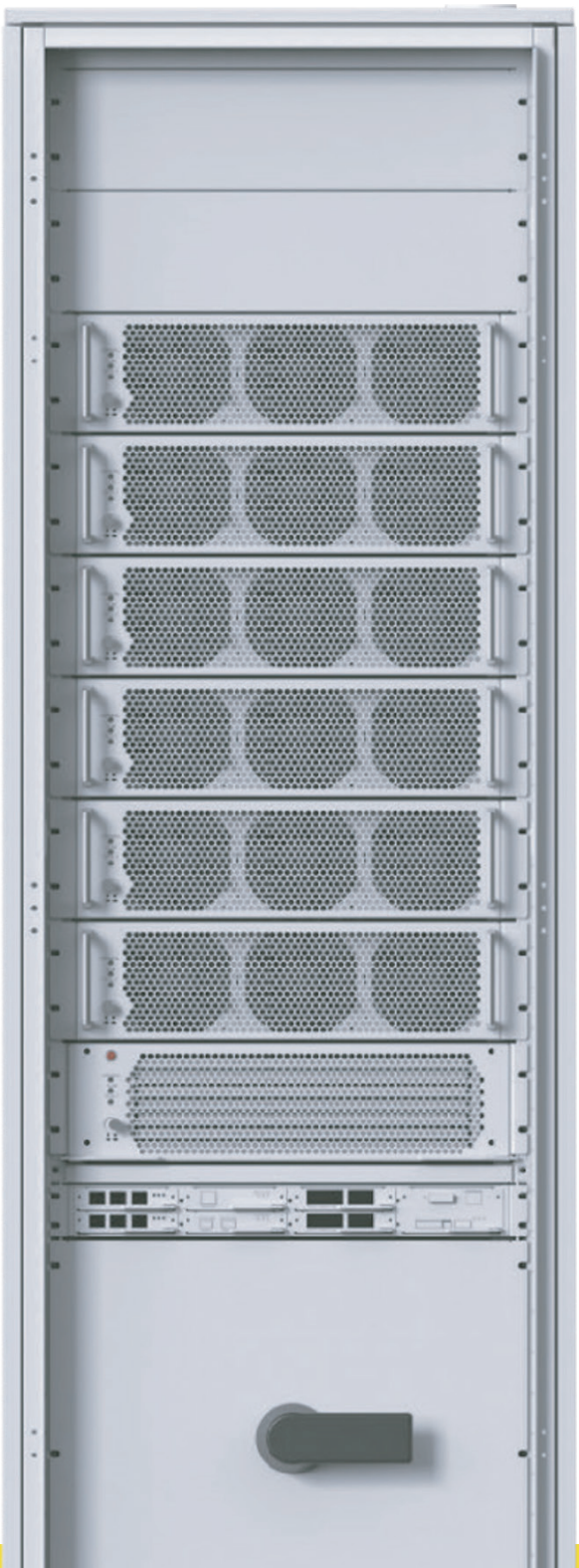


Datalogger

Record of input & output voltage, current, alarm & event for analysis
Advanced waveform analysis of abnormal event.

GENEXIS

Modular UPS



UPS power module 40kVA (summable)
138-486 AC 40-70Hz

Bi-directional inverter 30kW/45kVA (summable)
150-750V Charging
700-830V DC bus
400±15V AC

Intelligent Transfer Switch
3ph 380/400/480VAC
TN-C-S, TN-S, TT, TN-C Grid
SCADA/DER controlled & EMS

Solar PV charger module 45kW (summable)
250-830V PV side
700-830V DC Bus MPPT *3

Static VAR Generator
30 – 120 kVAr
400 – 690 V
50 / 60Hz (auto sensing)

Active Harmonic Filter
Capacity 5 - 300A
228 – 456 V IEEE519

DC Power Rectifier/Inverter
2000-6000W / block
12 - 120 V DC input-output (DC mode)
220(1ph) - 380(3ph) V AC input
SNMP/CAN/RS485 communication

Controller & datalogger
Monitoring & Data acquisition interface
Alarm & event function
Communication interface
Paralel operation interface

Specification

MODEL		UPS 40KVA	UPS 50 - 2400KVA
INPUT	Rated Voltage	380/400/415VAC	
	Voltage range	138~486V (linear derating between 138~305V)	
	Current harmonic distortion	＜3%	
	Power factor	＞0.99	
	Rated Frequency	40~70Hz	
OUTPUT	Output Voltage of Converter	380/400/415Vac	
	Stabilized Output Voltage Accuracy of Converter	±1%	
	Efficiency	Efficiency of Advanced ECO Mode is over 99% ; Online Double Conversion Mode: single module efficiency >97.5%, whole cabinet efficiency > 97%	
	Response Time	Online Mode response continuously; switching time of Advanced ECO Mode ≤5ms, typical 2ms	
	Overload Capacity of Inverter	110% load, switch to bypass after 60min	
		125% load, switch to bypass after10min	
		150%load, switch to bypass after 1min	
	THDv	<1% (linear load)	
BYPASS	Voltage	380/400/415Vac	
	Frequency	50/60Hz, depend on the load	
	Overload	≤135%, temperature ≤30°C, long-time operating	
		≤125%, temperature ≤40°C, long-time operating	
		150%~200%, last for 5min	
		200%~1000%, last for 1min	
		>1000%, last for 100ms	
SYSTEM	Parallel Operation	Max. 8 cabinets in parallel	
	Charge Mode	Intelligent battery management system Battery configuration: lead acid battery, lithium LFP, Sodium	
	Audible Noise (1 meter)	60~75dB	
	Protection leve l	IP21 (can be customized)	
	Cable entry	Bottom entry (side entry can be customized)	
	Communication Interface	RS485, CAN, Ethernet, backfill preventing card, WIFI (optional), 4G (optional), dry contact (optional)	
	Temperature	Operation ambient temperature: -10 ～40℃ , storage temperature: -40 ~ 70	
	Relative Humidity	0～95% without condensation	
	Altitude	≤1000m (over 1000m, please take IEC62040-3 standard derating for reference, max 4000m)	
	Monitoring	12-inch monitoring touch screen, supporting multiple languages	
	Dimension	300kVA cabinet size 600*830*2000mm(W*D*H), for other capacity, battery cabinet, or customized size, please contact Sinexcel engineers	
	Cabinet Color	Standard color is RAL7035 (can be customized)	
	Certification	TLC,CE(EN602040-1,E N602040-2)	

Battery Selection

Lithium BESS

Multiply of 30 & 50 kWh
48-786 VDC
LiFePO4 cells
0.5-1C discharge Amp
20~40°C operation

RoHS COMPLIANT · UL · IEC · CE · UN38.3

Sodium BESS

Multiply of 15 kWh
48-557 VDC
Sodium-Nickel-Chloride cells
0.5-3C rate Amp
UL9540A fire safety

UL · CE
UL 9540A

Ni-Zn BESS

Multiply of 38 & 46 kWh
48-786 VDC
Nickel-Zinc Cells
0.5-10C discharge Amp
-20~50°C operation
UL9540A fire safety

RoHS COMPLIANT · UL 9540A · CSA · CE · IBC2018

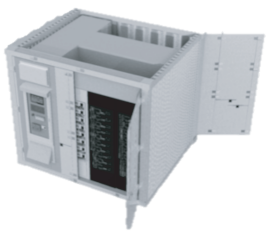
Lead Acid

Multiply of 1.2 kWh
12-196 VDC
VRLA cells
0.5-3C rate Amp

Enclosure Selection

Indoor 19” rack

Outdoor cabinet with Forced Air cooling



Containerized with Air Conditioning

Space Optimization

with Battery Energy Storage System

Space optimization benefit can have trickle down effect to other support system such as HVAC, lighting, fire system, etc

VRLA
Battery Rack

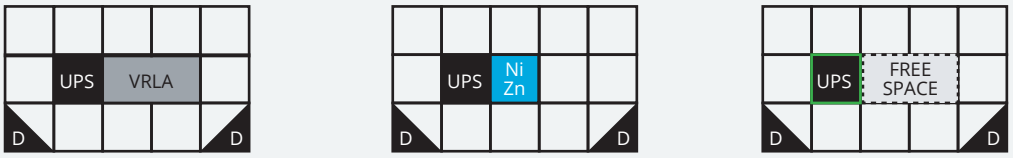
Ni-Zn
BESS Cabinet

Lithium LFP
BESS Cabinet

UPS & batteries in typical footprints
*Example configuration

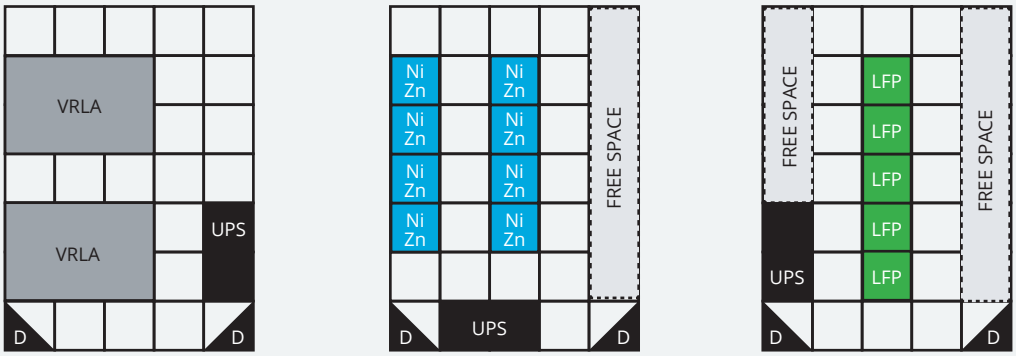
VR LA | Ni Zn | LFP

10-60kVA UPS Branch Site Server rack
10 min backup*



*UPS+LFP battery in the same cabinet

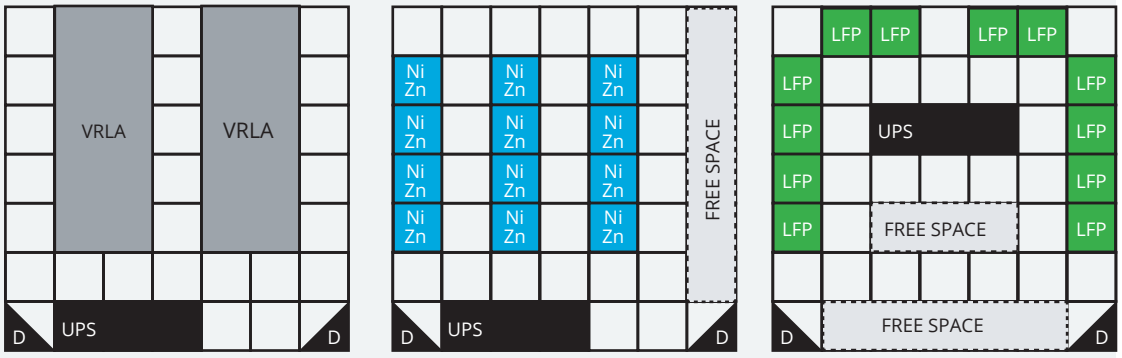
90-600kVA UPS Edge data center
8 min backup*



*BESS cabinet only need front access

*BESS cabinet only need front access

0.8-1.2MVA UPS Tier-1 data center
6 min backup*



*BESS cabinet only need front access

*BESS cabinet only need front access

*footprint multiplication will increase significantly with higher Tier system
*dimension in multiplication of 0.8 x 0.8 m square