

Online UPS

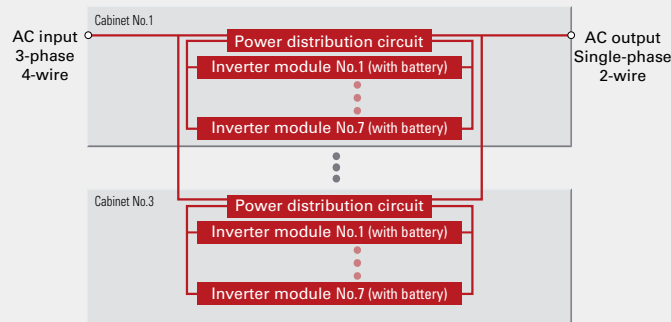
SANUPS A22A

Single-phase 2-wire 200 VAC

Modular UPS system

Scalable capacity with 5 kVA modules

Circuit block diagram



High Efficiency

- Achieves high efficiency levels of up to 94.5%. This reduces running costs and contributes to energy savings.

Flexible System Configuration

- 5 kVA modules allow users to select the output capacity to match the needs of the application.



- By combining optional external battery modules, backup time during power outages can be extended.

High Reliability

- The double conversion online topology ensures continuous supply of stable high quality power.
- Parallel redundant operation further improves reliability of the power supply.

Wide Input Range

- With a wide input voltage range of 240 to 460 V⁽¹⁾ and a wide input frequency range of 46 to 54 Hz,⁽²⁾ the SANUPS A22A can deal with unstable power sources. This prevents unnecessary battery operation, minimizing battery drain.

(1) Input voltage range value when input voltage is set to 400 V.

(2) Input frequency range value when input frequency is set to 50 Hz.

Easy Maintenance

- Front-access design allows users to install and remove batteries and inverter modules easily.
- Maintenance can be performed without interrupting the inverter power to critical loads during parallel redundant operation. In addition, power can continue to be supplied even if an outage occurs during maintenance.



Inverter module specifications

Item		Specifications	Remarks	
Technology	Topology	Double conversion online		
	Cooling method	Forced air cooling		
	Inverter	High-frequency PWM		
	Inverter structure	Modular	Hot-swappable	
	Battery structure	Modular	Hot-swappable	
AC input	No. of phases/wires	3-phase 4-wire		
	Rated voltage	380/400/415 V		
	Voltage range	At load level < 70%: Within -40 to +15% of rated voltage	-40% becomes -20% for recovery voltage	
		At load level ≥ 70%: Within -20 to +15% of rated voltage		
	Rated frequency	50/60 Hz (auto-sensing)		
	Frequency range	Within ±8% of rated frequency		
Power factor	0.95 or more	When input voltage harmonic distortion is less than 1%		
AC output	Rated capacity	5 kVA / 5 kW	Apparent power / active power	
	No. of phases/wires	Single-phase 2-wire		
	Rated voltage	220/230/240 V		
	Voltage regulation	Within ±3% of rated voltage	At rated output	
	Rated frequency	50/60 Hz	Same as input frequency	
	Frequency regulation	Within ±1, 3, or 5% of rated frequency	Configurable	
		Within ±0.5% of rated frequency	During battery operation	
	Voltage harmonic distortion	3% or less / 7% or less	At linear load / rectifier load, rated output	
	Transient voltage fluctuation	Rapid load change	Within ±5% of rated voltage	For 0 ⇔ 100% load step changes
		Loss or return of input power		At rated output
		Input voltage during rapid change		For ±10% rapid voltage changes
Load power factor	0.7 (lagging) to 1.0			
Overload capability	120% (30 min)			
	150% (1 min)			
Overcurrent protection	Inverter shutdown			
Efficiency	94.5%	At rated output		
Acoustic noise	55 dB or less	1 m from front of device, A-weighting		
Operating environment	Ambient temperature	0 to +40°C	During operation	
		-15 to +40°C	During storage, transit	
	Relative humidity	10 to 95% (non-condensing)	During operation, storage, transit	
Installation location	Indoors			
Operating altitude	2,000 m or less			
Battery				
Battery type	Small-sized valve-regulated lead-acid (VRLA) battery			
Battery configuration	12 V, 9 Ah equivalent			
Batteries per inverter module	16			
Backup time	10 min	At 25°C ambient temperature, load power factor of 0.75, using new, fully charged batteries.		