

Online UPS

SANUPS A11M

Highly Reliable Parallel Redundant UPS
Can be used all over the world

Lineup

[No. of phases/wires] Input/Output voltage	Output capacity		Battery backup time*
	[kVA]	[kW]	
[Single-phase 2-wire] 100 V model 100/110/115/120 V	1	0.8	3 min (5 min)
	2	1.6	
	3	2.4	
	4	3.2	
[Single-phase 2-wire] 200 V model 200/208/220/230/240 V	5	4.0	
	6	4.8	
	7	5.6	
	8	6.4	

At 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries. In parentheses are values at 0.7 load power factor.



High Reliability

- UPS units can be combined in a parallel redundant configuration. Even if one unit malfunctions, the remaining units can continue to supply stable power.

Easy Maintenance

- Battery packs can be replaced from the front even during inverter operation. UPS units can be replaced without interrupting output during parallel redundant operation, enabling power to continue to be supplied even if an outage occurs during maintenance.

Wide Operating Temperature Range

- The A11M has a wide operating temperature range of -10 to +55°C.

Wide Input Voltage Range

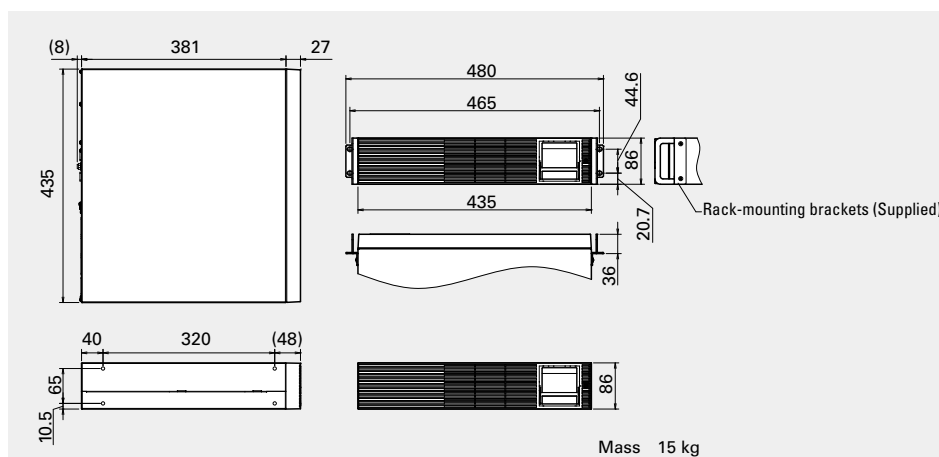
- The 100 V and 200 V models have wide input voltage ranges of 55 to 150 V and 110 to 300 V,* respectively. Both models have a wide input frequency range of 40 to 120 Hz.
- Even with poor power conditions, these wide ranges reduce the number of unnecessary transfers to battery power, minimizing battery drain.

* At a load level less than 40%.

Parallel Redundant Configurations

Single-unit/Parallel operation (N config.)	2 kVA (1.6 kW)	3 kVA (2.4 kW)	4 kVA (3.2 kW)	5 kVA (4.0 kW)	6 kVA (4.8 kW)	7 kVA (5.6 kW)	8 kVA (6.4 kW)
Parallel redundant operation (N+1 config.)	1 kVA (0.8 kW)	2 kVA (1.6 kW)	3 kVA (2.4 kW)	4 kVA (3.2 kW)	5 kVA (4.0 kW)	6 kVA (4.8 kW)	7 kVA (5.6 kW)

Dimensions (Unit: mm)



Power distribution unit (PDU)



A PDU is used in combination with UPS units

Specifications

Model no.		A11M102A001M	A11M102A002M	Remarks	
Rated output capacity (apparent power / active power)	N config.	2.0 to 8.0 kVA / 1.6 to 6.4 kW			
	N+1 config.	1.0 to 7.0 kVA / 0.8 to 5.6 kW			
System	Topology	Double conversion online			
	Cooling method	Forced air cooling			
AC input	No. of phases/wires	Single-phase 2-wire ⁽¹⁾			
	Rated voltage	100/110/115/120 V	200/208/220/230/240 V	Same as AC output	
	Voltage range	55 to 150 V	110 to 300 V		
	Rated frequency	50/60 Hz (auto-sensing ⁽²⁾)			
	Frequency range	Synchronization range	Within $\pm 1/3/5\%$ of rated frequency (Factory setting: $\pm 3\%$)		
		Asynchronous operation range	40 to 120 Hz		
	Required capacity ⁽³⁾	N config.	2.4 to 9.6 kVA		
N+1 config.		1.2 to 8.4 kVA			
Input power factor	0.95 or greater				
AC output	No. of phases/wires	Single-phase 2-wire			
	Rated voltage	100/110/115/120 V (Factory setting: 100 V)	200/208/220/230/240 V (Factory setting: 200 V)	Selectable with settings	
	Voltage regulation	Within $\pm 5\%$ of rated voltage			
	Rated frequency	50/60 Hz			
	Frequency regulation	In grid-connected operation	Within $\pm 1/3/5\%$ of rated frequency (Factory setting: $\pm 3\%$)		
		In battery operation	Within $\pm 0.5\%$ of rated frequency (Voltage regulation during asynchronous operation is within this range)		
	Voltage harmonic distortion	At linear load	3% or less		
		At rectifier load	8% or less		
	Load power factor	Rated	0.8 lagging (Variation range: 0.7 lagging to 1.0)		
		Transient voltage fluctuation	Within $\pm 10\%$ of rated voltage (For $0 \leftrightarrow 100\%$ load step changes at rated input)		
	Overcurrent protection	For loss or return of input power	Within $\pm 10\%$ of rated voltage (At rated output)		
		For abrupt input voltage change	Within $\pm 10\%$ of rated voltage (For $\pm 10\%$ abrupt change)		
Overload capability	Inverter	105% (for 200 ms)			
	Bypass	200% (for 30 s), 800% (for 2 cycles)			
Battery	Type	Small-sized valve-regulated lead-acid (VRLA) battery			
	Battery backup time ⁽⁴⁾	3 min (5 min)			
	Expected life	Approx. 5 years			
	Battery self-test	Automatic			
Interface	PC port	RS-232C, USB Type B ⁽⁵⁾ (Cannot be used at the same time)			
	Remote port	Remote ON/OFF			
	Dry contact	Optional dry contact interface card is required			
	Network support	Optional LAN interface card is required			
Operating environment	Ambient temperature: -10 to +55°C; ⁽⁶⁾ relative humidity: 20 to 90% (non-condensing)				
Storage environment ⁽⁷⁾	Ambient temperature: -15 to +60°C; relative humidity: 20 to 90% (non-condensing)				
Separate options					
Rack support rails ⁽⁸⁾	RM030 (2U)				
Power distribution unit	PDA11M802A01		PDA11M802A02		

(1) If single-wire grounding the AC input and output, set the input/output ground phase according to the UPS specification. The W (N) terminal of AC input (S phase) and the W (N) terminal of AC output (V phase) are to be grounded.

(2) The inverter is synchronized with AC input and allows an uninterrupted transfer to bypass provided that the input frequency is within $\pm 3\%$ of the rated frequency (1, 3, or 5% selectable).

(3) Max. capacity during battery recovery charging

(4) At 25°C ambient temperature and 0.8 load power factor, using new, fully charged batteries. In parentheses are values at 0.7 load power factor.

(5) Use of USB interface requires driver installation.

(6) Battery charging stops when battery temperature exceeds 40°C.

(7) To extend battery life, avoid use or storage for extended periods of time in environments exceeding +30°C. When storing UPSs without operating for a long period, battery recharging once every six months is required.

(8) Used for mounting UPS units on a standard 19-inch rack.