

SANUPS E11A

Hybrid UPS

Ver.2
English



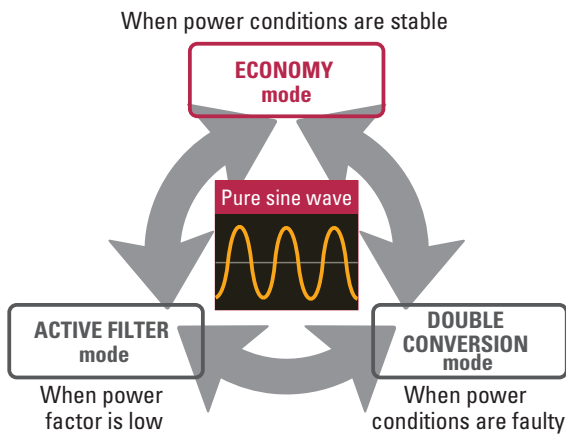
SANUPS E11A

Energy-saving and highly reliable UPS that features a high-quality power mode and energy-saving mode



Achieves Both High-Quality Power Supply and Energy Saving

- A conversion efficiency of 95% has been achieved.⁽¹⁾
- This hybrid UPS automatically selects the most efficient mode of operation for any given power condition.⁽²⁾



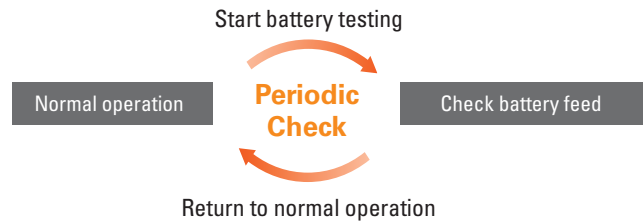
(1) For 1 kVA model at Economy mode

(2) Operation modes other than Active Filter mode can be fixed manually.

Automatic Battery Self-Test

- Battery self-tests can be performed automatically at regular intervals, which keeps ensures stable UPS operation in case of a power outage. Battery testing requires no power interruption to loads.

Note: Battery test interval can be set by the user.



Easy Maintenance with Hot-Swappable Module

- Front-access module design allows users to easily replace battery packs during inverter operation.

Note: For battery replacement of 0.35 kVA and UL/CE/UKCA models, please consult us.

Lineup:

[No. of phases/wires] Input/Output voltage	Output capacity		Battery backup time*	Input plug	Safety standards	Model no.	Page					
	[kVA]	[kW]					Specifications	Dimensions				
[Single-phase 2-wire] 100 V _{model} 100/110/115/120 V	0.35	0.245	6 min	NEMA 5-15P	✓	E11A351B001UJ	p. 5	p. 6				
						E11A351B021UJ	p. 5	p. 6				
	0.75	0.525	6 min	NEMA 5-15P	✓	E11A751B001UJ	p. 5	p. 6				
						E11A751B011UJ	p. 5	p. 6				
						E11A751B021UJ	p. 5	p. 6				
						E11A751B001TWUJ	p. 5	p. 7				
						E11A751B011TWUJ	p. 5	p. 7				
						E11A751B021TWUJ	p. 5	p. 7				
	1	0.7	5 min	NEMA 5-15P	✓	E11A102B001TWUJ	p. 5	p. 7				
						E11A102B011TWUJ	p. 5	p. 7				
						E11A102B021TWUJ	p. 5	p. 7				
						1.5	1.05	5 min	NEMA 5-20P	✓	E11A152B001TWUJ	p. 5
E11A152B011TWUJ											p. 5	p. 7
E11A152B021TWUJ											p. 5	p. 7
			NEMA 5-15P	—	E11A152B001TW	p. 5	p. 7					
				—	E11A152B011TW	p. 5	p. 7					
				—	E11A152B021TW	p. 5	p. 7					

* At a 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries.

SANUPS SOFTWARE STANDALONE

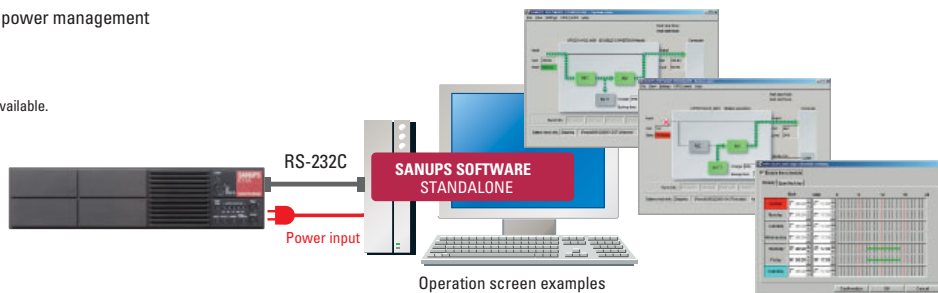
A free software program (Windows version) that enables the power management from computers is available for download from our website.

UPS status can be checked at a glance from a PC or server.

For power management via a network, we have optional network solutions available.

Main functions

- Automatic start-up/shutdown of computers
- Scheduled operation
- UPS status display
- Message display
- UPS event log



Battery Cold Start Function

Batteries can start up the UPS even when grid power is not available, enabling inverter operation.

With this function enabled, the UPS can be used as an emergency power supply in the event of a natural disaster or emergency. The default setting is "Disabled."

Network Options

Item	Model no.	Remarks	
LAN interface card	PRLANIF031	When installed in the optional card slot, this card enables 24/7 monitoring of UPS operations and status, and sends email notifications to system administrators for quick actions via network in the event of a power failure. Combined with a temperature and humidity sensor (Model no.: 9CT1-T, extension cable: CARD-CBL007), this card can also monitor the ambient temperature and humidity. Multiple servers (up to 50) can be shut down through communication protocols such as SSH, Telnet, and REST API.	
Dry Contact Interface Card	Terminal block output	PRCONIF001-US	This card outputs no-voltage contact signals to notify UPS status.
	D-sub output connector	PRCONIF003-US	Normally-closed dry contacts and normally-open dry contacts can be used for sending signals.
SANUPS SOFTWARE Download version	For Windows	PMS52□00DL⁽²⁾	SANUPS SOFTWARE is used to shut down up to 50 network-connected servers, one of which is connected to the UPS via a serial cable, from the serially connected server. The software is not necessary when using the LAN interface card PRLANIF031. For the latest OS support information, refer to our website. For bulk purchase of software licenses, append appropriate -suffix to the model number.
	Multi-OS supported ⁽¹⁾	PMS53□00DL⁽²⁾	
Remote switch	Cable length 10 m	RSW011	This switch remotely turns on/off the UPS outlets via wired connection. With optional linked operation cables, sequential on/off switching of up to 5 UPS units is possible.
	Cable length 2 m	RSW013	
Linked Operation cable	Cable length 1 m	P10197	A unit-to-unit cable for performing on/off switching of multiple UPS units.
	Cable length 3 m	P10198	

(1) Supports Windows, Unix, and Linux.

(2) The □'s denote revision characters.

Note: Option products have different operating temperature ranges from the UPS.

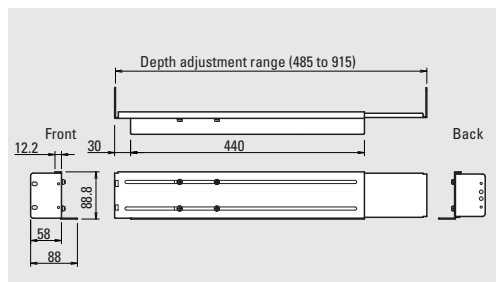
Dimensions of Options (Unit: mm)

Rack support rails

Used for mounting the UPS on a standard 19-inch rack.

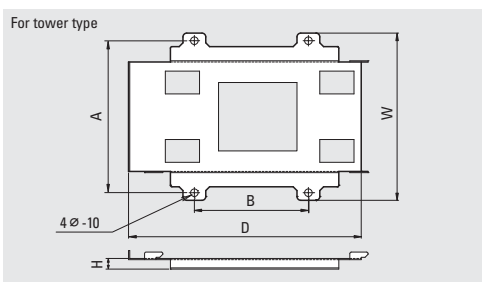
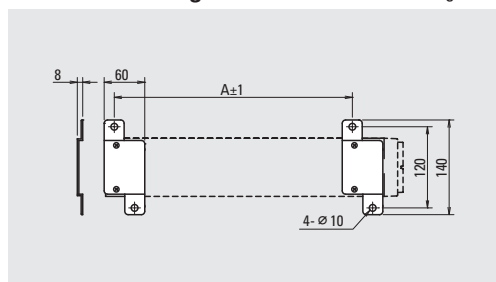
Rack mounting brackets are included with the support rails. A pair of left and right rails. Shown below is the left rail.

RME11A751A00 (2U, for 0.75 kVA models)



Floor mounting brackets

Used for securing the UPS to the floor.

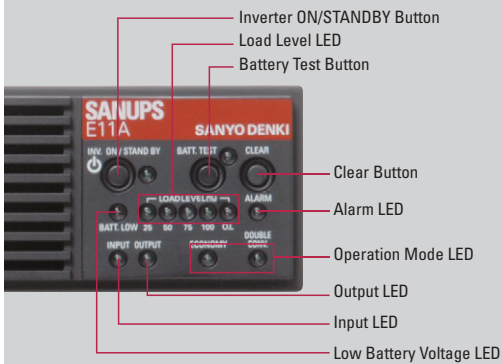


Model no.	UPS capacity	A
FMA11F00	0.75 kVA	320

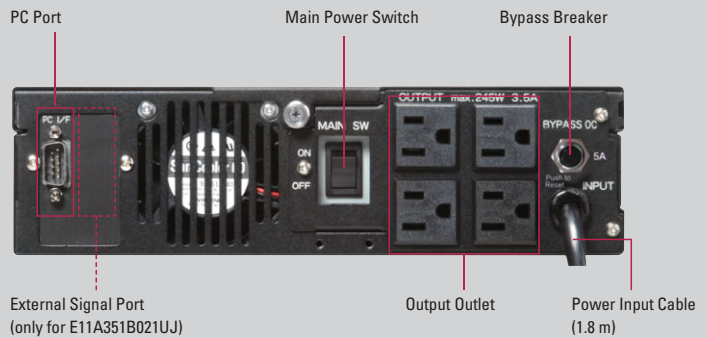
Model no.	UPS capacity	W	D	H	A	B
FME11AA03	0.75 kVA	220	306.1	14	200	150
FME11AA04	1 kVA		351.1			200
FME11AA05	1.5 kVA		406.1			250

Views and Part Names

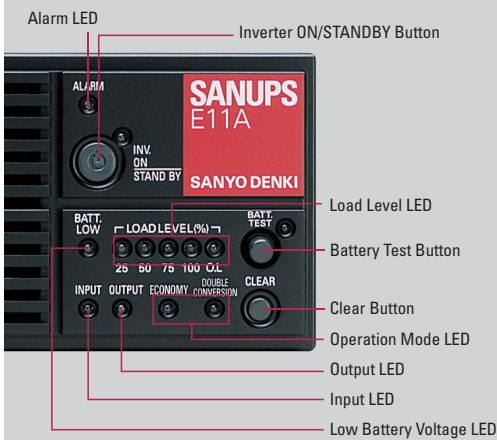
0.35 kVA, Operation Panel



0.35 kVA, Rear View

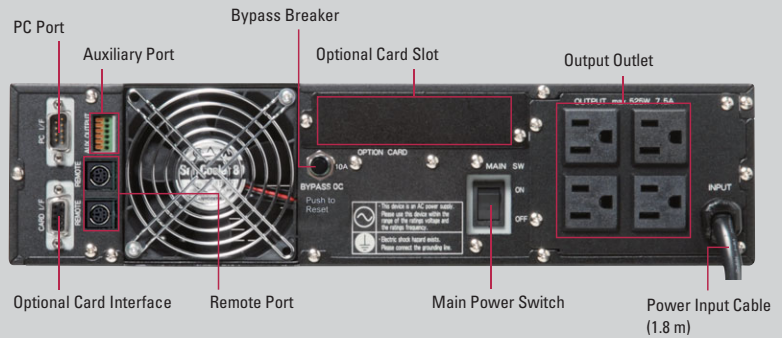


0.75 kVA, Operation Panel



0.75 kVA, Rear View

Model: E11A751B011

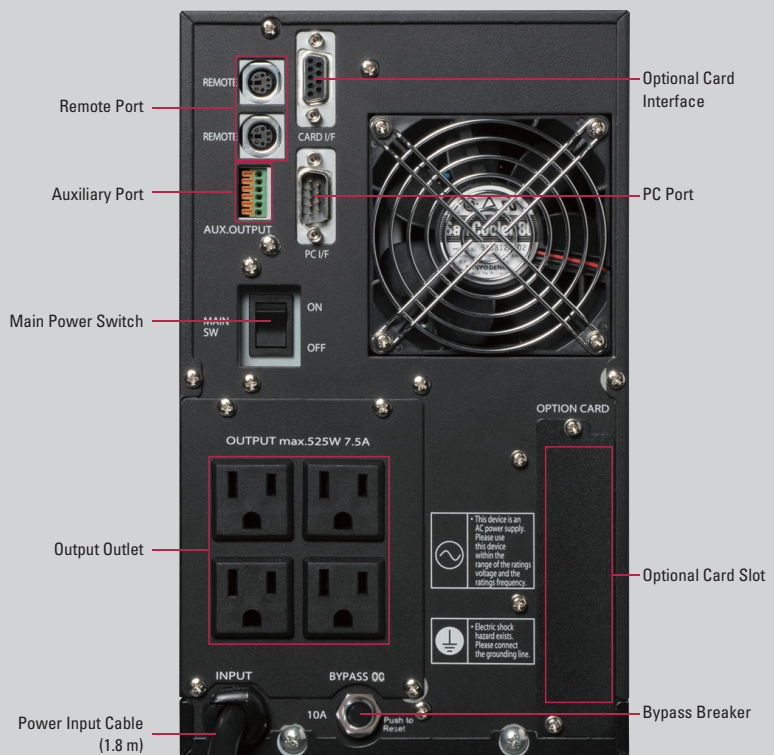


Tower Type, Operation Panel



Tower Type, Rear View

Model: E11A751B011TW



Note: Above are photos of typical models. Interface specifications may vary by model.

Common Specifications

Model no.		E11A351B0□1UJ	E11A751B0□1□□UJ	E11A102B0□1TWUJ	E11A152B0□1TW□□	
Rated output capacity (apparent power / active power)		0.35 kVA / 0.245 kW	0.75 kVA / 0.525 kW	1 kVA / 0.7 kW	1.5 kVA / 1.05 kW	
Technology	Topology	Hybrid ⁽¹⁾				
	Cooling system	Forced air cooling				
AC input	No. of phases/wires	Single-phase 2-wire				
	Rated voltage (Same as output)	100/110/115/120 V				
	Voltage range	In Double Conversion mode	Within -20 % to +15% of rated voltage ⁽²⁾			
		In Active Filter mode	Within ±5% of rated voltage			
		In Economy mode	Within ±8% of rated voltage (±5% in automatic setting)			
	Rated frequency	50/60 Hz (auto-sensing ⁽³⁾)				
	Frequency range	In Double Conversion mode	Within ±8% of rated frequency			
		In Active Filter mode	Within ±1/3/5% of rated frequency (Factory setting: ±3%)			
In Economy mode						
Required capacity ⁽⁴⁾	0.34 kVA or less	0.7 kVA or less	0.9 kVA or less	1.36 kVA or less		
Input power factor	In Double Conversion mode	0.95 or greater				
	In Active Filter mode	0.85 or greater (at 100 V setting)		0.9 or greater		
	In Economy mode	0.7 (lagging)				
AC output	No. of phases/wires	Single-phase 2-wire				
	Rated voltage (Changeable with settings)	100/110/115/120 V (Factory setting: 100 V)				
	Voltage regulation	In Double Conversion mode	Within ±2% of rated voltage			
		In Active Filter mode	Within -7% to +5% of rated voltage			
		In Economy mode	Within -10% to +8% of rated voltage (-7% to +5% in automatic setting)			
	Rated frequency (same as input)	50/60 Hz				
	Frequency regulation	In grid operation	In Double Conversion mode	Within ±1% of rated frequency		
			In Active Filter mode	Within ±1/3/5% of the rated frequency (User-selectable. Factory setting: ±3%)		
			In Economy mode			
		In battery operation	Within ±0.5% of rated frequency			
	Voltage harmonic distortion ⁽⁵⁾	At linear load	3% or less			
		At 100% rectifier load	8% or less	7% or less		
	Load power factor	Rated	0.7 (lagging)			
Transient voltage fluctuation	For abrupt load change	Within ±5% of rated voltage (For 0⇌100% load step changes at rated input)				
	For loss or return of input power	Within ±5% of rated voltage (At rated output)				
	For abrupt input voltage change	Within ±5% of rated voltage (For ±10% abrupt change)				
Overcurrent protection ⁽⁷⁾	Breaker protection					
Overload capability	Inverter	In Double Conversion mode	105% (for 200 ms)			
		In Active Filter mode	200% (30 s)			
		In Economy mode				
	Bypass	800% (2 cycles)				
Battery	Type	Small-sized valve-regulated lead-acid (VRLA) battery				
	Backup time ⁽⁸⁾	6 min		5 min		
	Expected life	5 years (At an operating temperature of 25° C. For reference purposes only.)				
	Battery capacity	(Ah · cell)	54	108	108	162
		(Wh)	102	204	204	306
Battery self-test	Automatic					
Acoustic noise (In Double Conversion mode; 1 m from front of UPS, A-weighted)	40 dB or less					
Heat dissipation (In Double Conversion mode at rated output, after battery charging completed)	59 W	111 W	125 W	200 W		
Input leakage current	3 mA or less					
Operating environment ⁽⁹⁾	Temperature: 0 to 40° C, humidity: 20 to 90% RH (non-condensing)					
Storage environment ⁽⁹⁾	Temperature: -15 to +50° C, humidity: 20 to 90% RH (non-condensing)					
Expected service life (of the UPS unit excluding battery)	7 years (At a 30°C average ambient temperature. For reference purposes only)					
Safety standards	UL 1778 5th, CSA C22.2 No. 107.3-14 3rd, CE: IEC 62040-1:2008					
EMC standard	VCCI 32-1 Class A FCC Part 15 Subpart B Class A, EN 62040-2 C2:2010, EN 55032:2015 Class A, EN 62040-2:2006, EN 55035:2017/A11:2020					

(1) A momentary power interruption lasting less than 5 ms occurs when switching to battery operation from Economy mode or Active Filter mode. Fix the operation mode to Double Conversion mode for applications that require uninterrupted transfer.

(2) When using the UPS as a UL or CE compliant model, use an input voltage within the range of 90 to 128 V.

(3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within ±3% of the rated frequency (1/3/5% selectable).

(4) Max. capacity during battery recovery charging

(5) 0.85 or greater for the E11A152B001TW model

(6) After battery charging completed, at Double Conversion mode, rated operation

(7) In Double Conversion mode, the UPS transfers to bypass operation with no interruption (automatic retransfer). This automatic retransfer setting can be disabled.

(8) At 25°C ambient temperature and rated output, using new, fully charged batteries

(9) To extend battery life, avoid use or storage for extended periods of time in environments exceeding +30°C. If a UPS is stored without being operated for a long period, the batteries require recharging once every 3 to 6 months.

Specifications and Dimensions (Unit: mm)

Output capacity **0.35 kVA**

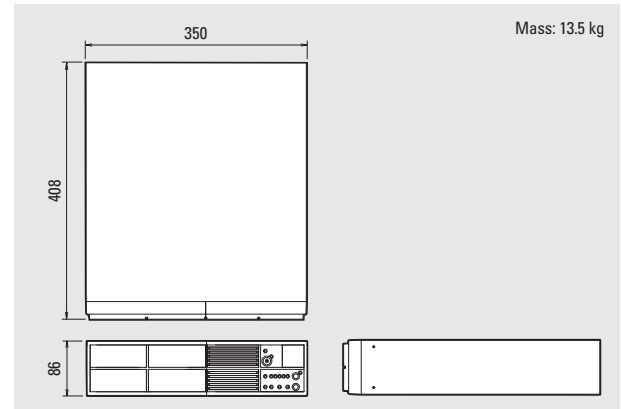
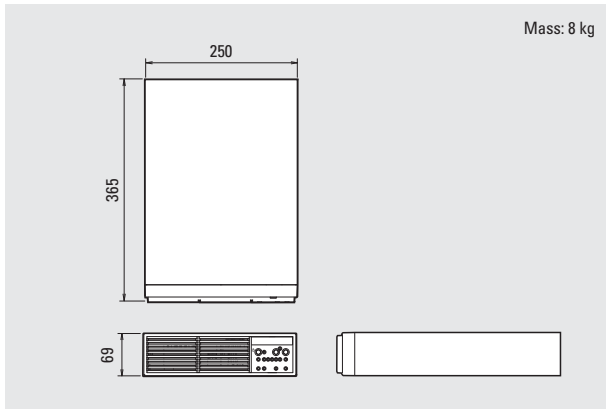
Model no.	E11A351B001UJ	E11A351B021UJ	
UL-registered no.	E11A351U001J	E11A351U021J	
Rated output capacity (apparent power / active power)	0.35 kVA / 0.245 kW		
AC input	Rated voltage (Same as output)	100/110/115/120 V	
	Input plug	NEMA 5-15P	
AC output	Rated voltage (Changeable with settings)	100/110/115/120 V (Factory setting: 100 V)	
	Output outlet (x pcs)	NEMA 5-15R (x 4)	
Interface	PC port	RS-232C	
	Remote port ⁽¹⁾	—	
	Auxiliary port (EPO)	—	
	Optional card interface	Dry contact ⁽³⁾	— ⁽²⁾
		LAN ⁽⁴⁾	—
Output Line Control contact	—		
UL/CE compliance	✓	✓	
Separate options			
Outlet box ⁽⁵⁾	—	—	
Rack support rails ⁽⁶⁾	—	—	
Floor mounting brackets ⁽⁷⁾	—	—	
Air filter ⁽⁸⁾	FL003	—	
Replacement battery pack model no. ⁽⁹⁾	—	—	

Output capacity **0.75 kVA**

Model no.	E11A751B001UJ	E11A751B011UJ	E11A751B021UJ	
UL-registered no.	E11A751U001J	E11A751U011J	E11A751U021J	
Rated output capacity (apparent power / active power)	0.75 kVA / 0.525 kW			
AC input	Rated voltage (Same as output)	100/110/115/120 V		
	Input plug	NEMA 5-15P		
AC output	Rated voltage (Changeable with settings)	100/110/115/120 V (Factory setting: 100 V)		
	Output outlet (x pcs)	NEMA 5-15R (x 4)		
Interface	PC port	RS-232C		
	Remote port ⁽¹⁾	—	✓	
	Auxiliary port (EPO)	—	✓	
	Optional card interface	Dry contact ⁽³⁾	—	✓
		LAN ⁽⁴⁾	✓	✓
Output Line Control contact	—	✓		
UL/CE compliance	✓	✓	✓	
Separate options				
Outlet box ⁽⁵⁾	—	P10037	—	
Rack support rails ⁽⁶⁾	RME11A751A00			
Floor mounting brackets ⁽⁷⁾	FMA11F00			
Air filter ⁽⁸⁾	FL002			
Replacement battery pack model no. ⁽⁹⁾	S-BPE11A751A0006			

- (1) Remote on/off switch (can control up to 5 UPS units in Linked Operation using a dedicated cable)
- (2) Transistor output available
- (3) To use dry contact output, an optional dry contact interface card is required.
- (4) Optional LAN interface card is required.
- (5) This enables Output Line Control, the coordinated on/off management of UPS outlets. Output 0: constant output; output 1 or 2: controlled output.

- (6) Used for mounting the UPS on a standard 19-inch rack.
- (7) Brackets for mounting the UPS to the floor.
- (8) Front side air intake filter to prevent dust ingress.
- (9) For battery replacement, see the FAQ on our website.



Paint color: Black (Munsell N1.5)



Output capacity **0.75 kVA** Tower type

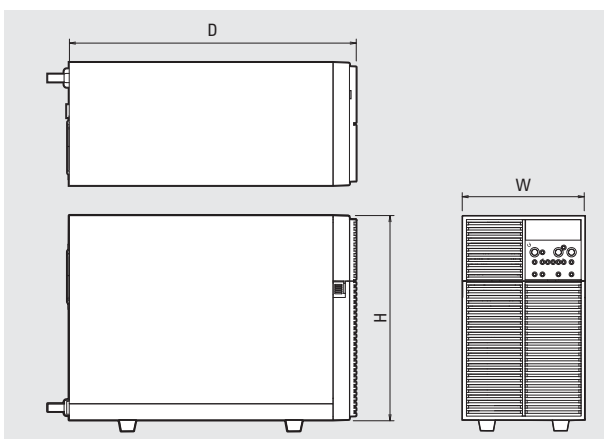
Output capacity 0.75 kVA			Output capacity 1 kVA					
Model no.	E11A751B001TWUJ	E11A751B011TWUJ	E11A751B021TWUJ	E11A102B001TWUJ	E11A102B011TWUJ	E11A102B021TWUJ		
UL-registered no.	E11A751U001TWJ	E11A751U011TWJ	E11A751U021TWJ	E11A102U001TWJ	E11A102U011TWJ	E11A102U021TWJ		
Rated output capacity (apparent power / active power)	0.75 kVA / 0.525 kW			1 kVA / 0.7 kW				
AC input	Rated voltage (Same as output)	100/110/115/120 V			100/110/115/120 V			
	Input plug	NEMA 5-15P			NEMA 5-15P			
AC output	Rated voltage (Changeable with settings)	100/110/115/120 V (Factory setting: 100 V)			100/110/115/120 V (Factory setting: 100 V)			
	Output outlet (× pcs)	NEMA 5-15R (× 4)			NEMA 5-15R (× 4)			
Interface	PC Port	RS-232C			RS-232C			
	Remote port ⁽¹⁾	—	✓	—	—	✓	—	
	Auxiliary port (EPO)	—	✓	—	—	✓	—	
	Optional card interface	Dry contact ⁽³⁾	—	✓	✓	—	✓	✓
		LAN ⁽⁴⁾	✓	✓	✓	✓	✓	✓
Output Line Control contact	—	✓	—	—	✓	—		
UL/CE compliance	✓	✓	✓	✓	✓	✓		
Separate options								
Outlet box ⁽⁵⁾	—	P10037	—	—	P10037	—		
Rack support rails ⁽⁶⁾	—			—				
Floor mounting brackets ⁽⁷⁾	FME11AA03			FME11AA04				
Air filter ⁽⁸⁾	FL004			FL004				
Replacement battery pack model no. ⁽⁹⁾	S-BPE11A751A0006-T			S-BPE11A102A0005-T				

Output capacity **1.5 kVA**

Model no.	E11A152B001TWUJ	E11A152B011TWUJ	E11A152B021TWUJ	E11A152B001TW	E11A152B011TW	E11A152B021TWJ	
UL-registered no.	E11A152U001TWJ	E11A152U011TWJ	E11A152U021TWJ	—	—	—	
Rated output capacity (apparent power / active power)	1.5 kVA / 1.05 kW						
AC input	Rated voltage (Same as output)	100/110/115/120 V			NEMA 5-15P		
	Input plug	NEMA 5-20P			NEMA 5-15P		
AC output	Rated voltage (Changeable with settings)	100/110/115/120 V (Factory setting: 100 V)			NEMA 5-15R (× 4)		
	Output outlet (× pcs)	NEMA 5-20R (× 4)			NEMA 5-15R (× 4)		
Interface	PC Port	RS-232C			RS-232C		
	Remote port ⁽¹⁾	—	✓	—	—	✓	
	Auxiliary port (EPO)	—	✓	—	—	✓	
	Optional card interface	Dry contact ⁽³⁾	—	✓	✓	—	✓
		LAN ⁽⁴⁾	✓	✓	✓	✓	✓
Output Line Control contact	—	✓	—	—	✓	—	
UL/CE compliance	✓	✓	✓	—	—	—	
Separate options							
Outlet box ⁽⁵⁾	—	P10037	—	—	P10037	—	
Rack support rails ⁽⁶⁾	—						
Floor mounting brackets ⁽⁷⁾	FME11AA05						
Air filter ⁽⁸⁾	FL004						
Replacement battery pack model no. ⁽⁹⁾	S-BPE11A152A0005-T						

- (1) Remote on/off switch (can control up to 5 UPS units in Linked Operation using a dedicated cable)
- (2) Transistor output available
- (3) To use dry contact output, an optional dry contact interface card is required.
- (4) Optional LAN interface card is required.
- (5) This enables Output Line Control, the coordinated on/off management of UPS outlets. Output 0: constant output; output 1 or 2: controlled output.

- (6) Used for mounting the UPS on a standard 19-inch rack.
- (7) Brackets for mounting the UPS to the floor.
- (8) Front side air intake filter to prevent dust ingress.
- (9) For battery replacement, see the FAQ on our website.



UPS capacity	W	D	H	Mass
0.75 kVA	150	350	250	14 kg
1 kVA		395		17 kg
1.5 kVA		450	22 kg	

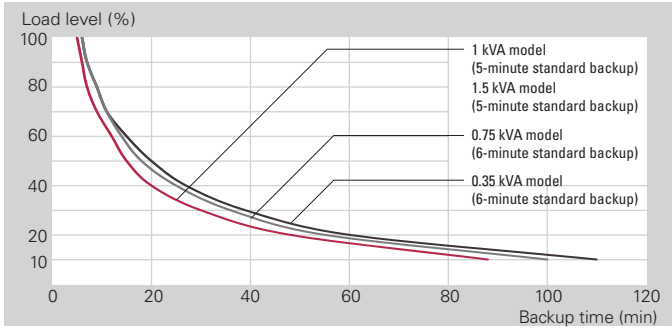
Input plug shape



Output outlet shape



Load Level vs Backup Time



Note: Reference value at 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries.



ECO PRODUCTS

ECO PRODUCTS are designed to reduce the environmental impacts throughout the product's life cycle. Ranging from design to manufacturing stages, the environmental impact of a product and its packaging materials is assessed against the eco-design requirements. Those products that satisfy the requirements are accredited as ECO PRODUCTS.

● Fire Service Law and Fire Prevention Ordinance in Japan

The Fire Prevention Ordinance regulates the total battery capacity of storage batteries, including lithium-ion batteries, that can be installed indoors. When installing UPSs indoors, confirm that the total battery capacity in one location does not exceed 20 kWh. In other cases, consult with your local fire department for approval.

Note that the UPSs cannot be used as an emergency power supply for firefighting equipment.

● Building Standard Law in Japan

The UPSs cannot be used as backup power for building facilities conforming to the disaster management requirements defined in the Building Standard Law.

Notes before Purchase

- Before installing, assembling, and using the products, please read Instruction Manual carefully and use them properly.
- When using the products in the following applications, consult with us in advance because special considerations are required for operation, maintenance, and management.
 - (a) Medical equipment that may have direct effects on human life or human body.
 - (b) Trains, elevators, and other machinery that can cause injury.
 - (c) Socially and publicly important computer systems.
 - (d) Other equipment that is related to safety of human life and that can have major impact on maintenance of public functions.
- For use in an environment where vibration is present, such as in a car or a ship, please consult with us in advance.
- Never attempt to disassemble or alter the products in any way.
- For installation and maintenance work of the products, please consult with us or properly licensed personnel.
- Please contact us concerning the disposal of used storage batteries supplied by SANYO DENKI.
- The products listed in this catalog fall into the category 16 of Appended Table 1 of the Export Trade Control Order. To export the products as an individual part or to export a device into which the products are assembled, the "Inform Requirements" and "Objective Requirements" that the Ministry of Economy, Trade and Industry of Japan established based on the "Catch-all Controls" must be studied for applicability. Accordingly, appropriate export formalities must be performed.
- SANYO DENKI will not be liable for any direct or indirect damages or loss, including but not limited to equipment downtime, missed power sales revenue, business interruptions, increased power purchases, resulting from the use of or inability to use our products or services.
- The products listed in this catalog are equipped with lithium-ion batteries. When transporting the products, do not transport by air. When transporting by sea, transport must be carried out according to the International Maritime Dangerous Goods (IMDG) Code. Also, depending on the country and region, there are cases where regulations are established independently, so please consult with the shipping company in advance.

For any inquiry or consultation, please contact a SANYO DENKI sales representative.

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<https://www.sanyodenki.com/>

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