SANUPS E11B

Hybrid UPS



Ver. 2







SANUPS E11B

UPS That Achieves Power Quality and Efficiency and Can Be Used Worldwide





Lineup

[No. of phases/wires] Input/Output voltage	Output capacit	ty [kW]	Battery Backup time*	Input plug	Fixed Double Conversion mode	UL/CE certified	Model no.	Page Specifications	Dimensions
				NEMA 5-15P	_	_	E11B102A001AM	6	4
	1	0.8	2: (5:)	NEMA 5-15P	✓		E11B102A001DM	6	4
	ı	0.0	3 min (5 min)	NEMA 5-15P	_	✓	E11B102A001AMUJ	9	4
				NEMA 5-15P	✓	✓	E11B102A001DMUJ	9	4
			2	NEMA 5-15P	_	_	E11B152A001AM	6	4
	1.5	1.2		NEMA 5-15P	✓	_	E11B152A001DM	6	4
	1.5	1.2	3 min (5 min)	NEMA 5-20P	_	✓	E11B152A001AMUJ	9	4
				NEMA 5-20P	✓	✓	E11B152A001DMUJ	9	4
[Single-phase 2-wire]				NEMA L5-30P	_	_	E11B202A001AM	6	4
'				NEMA L5-30P	$\overline{}$	_	E11B202A001DM	6	4
100 V model	2	1.0	0	NEMA L5-30P	_	√	E11B202A001AMUJ	9	4
100/110/115/120 V	2	1.6	3 min (5 min)	NEMA L5-30P	√	$\overline{}$	E11B202A001DMUJ	9	4
				Terminal block	_	_	E11B202A001AMT	8	4
				Terminal block	✓	_	E11B202A001DMT	8	4
				NEMA L5-30P	_	_	E11B302A001AM	6	4
				NEMA L5-30P		_	E11B302A001DM	6	4
	0		0	NEMA L5-30P		√	E11B302A001AMUJ	9	4
	3	2.4	3 min (5 min)	(5 min)	E11B302A001DMUJ	9	4		
				Terminal block			E11B302A001AMT	8	4
				Terminal block			E11B302A001DMT	8	4
				IEC 60320-C14	_	_	E11B102A002AM	7	4
			3 min (5 min)	IEC 60320-C14		_	E11B102A002DM	7	4
	4			NEMA L6-20P			E11B102A012AM	7	4
				NEMA L6-20P			E11B102A012DM	7	4
	1	8.0		IEC 60320-C14		√	E11B102A002AMUJ	10	4
				IEC 60320-C14		-	E11B102A002DMUJ	10	4
				NEMA L6-20P		-	E11B102A012AMUJ	10	4
				NEMA L6-20P	√	-	E11B102A012DMUJ	10	4
				IEC 60320-C20		_	E11B202A002AM	7	4
				IEC 60320-C20			E11B202A002DM	7	4
[Single-phase 2-wire]				IEC 60320-C20		$\overline{}$	E11B202A002AMUJ	10	4
	0			IEC 60320-C20	─ ✓	-	E11B202A002DMUJ	10	4
200 V _{model}	2	1.6	3 min (5 min)	NEMA L6-20P		-	E11B202A012AMUJ	11	4
200/208/220/230/240 V				NEMA L6-20P	─ ✓	-	E11B202A012DMUJ	11	4
200, 200, 220, 200, 270 V				Terminal block			E11B202A002AMT	8	4
				Terminal block			E11B202A002DMT	8	4
				IEC 60320-C20	_		E11B302A002AM	7	4
				IEC 60320-C20			E11B302A002AW	7	4
				IEC 60320-C20	_		E11B302A002BWI	11	4
				IEC 60320-C20		-	E11B302A002DMUJ	11	4
	3	2.4	3 min (5 min)	NEMA L6-20P				11	4
							E11B302A012AMUJ	11	4
				NEMA L6-20P			E11B302A012DMUJ	8	4
				Terminal block			E11B302A002AMT	8	4
AL . A. 0500 L'				Terminal block	✓		E11B302A002DMT	ď	4

Note: At a 25°C ambient temperature, 0.8 load power factor, using new, fully charged batteries. The values in parentheses are the values at a load power factor of 0.7.

Installation examples



Mountable in an EIA standard 19-inch rack

Rack-mounting brackets are included as standard. Rack support rails are optional.



Vertical installation

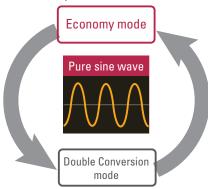
Vertical stands are optional.

Achieves Both High-Quality Power Supply and Energy Saving

 This UPS provides high-quality, reliable power to loads while achieving energy saving.

Thanks to the hybrid topology,⁽¹⁾ the UPS automatically selects the optimal mode of operation for any given input power conditions.

When power conditions are stable



When power conditions are faulty

(1) A UPS design that automatically switches the double conversion and standby topologies according to the input power conditions.

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.

Note: 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

Reduces Battery Drain and Degradation

- With its wide input voltage range,⁽²⁾ this UPS reduces the number of unnecessary transfers to battery power when input power is unstable, reducing battery drain and deterioration.
- This extends battery backup time for critical loads while reducing running costs including battery replacement.

(2) The 100 V and 200 V models have input voltage ranges of 55 to 150 V and 110 to 300 V, respectively. The input frequency range is 40 to 120 Hz for either voltage.

Wide Operating Temperature Range

The E11B has a wide operating temperature range of -10 to +55°C.
 (The upper limit is +40°C for UL/CE certified models)
 This provides the product with a higher degree of freedom of installation, allowing it to be installed in locations with large temperature differences.

Variety of Input and Output Options Available

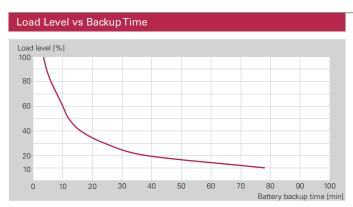
 We have a variety of input plug and output outlet options available for selection, allowing the E11B to be used in various countries.



Battery Cold Start Function

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

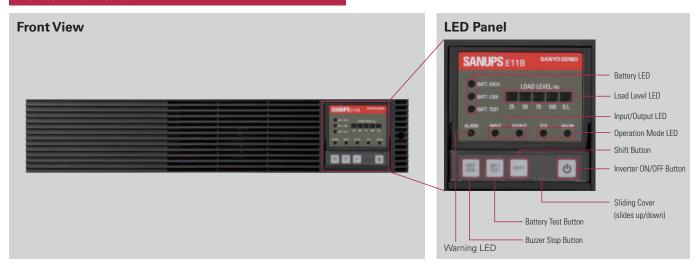
With this function enabled, the UPS can be used as an emergency power supply in the event of a natural disaster or emergency. The default setting is "Disabled."

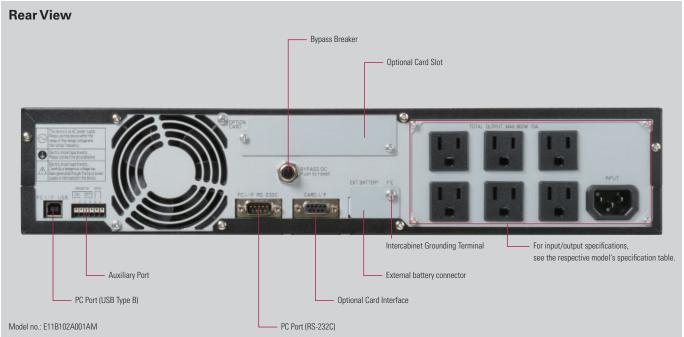


Note: Reference value at 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries.

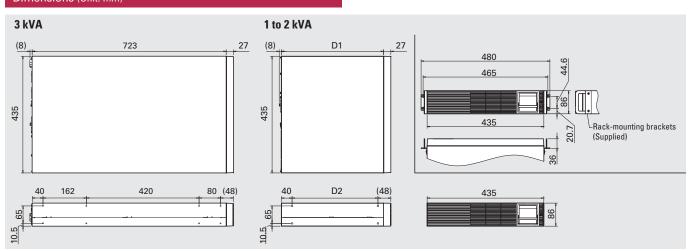
Hybrid UPS SANUPS E11B

Views and Part Names





Dimensions (Unit: mm)



Output capacity	D1	D2	Mass
1 kVA	381	320	15 kg
1.5 kVA	473	412	20 kg
2 kVA	538	477	25 kg
3 kVA	—	_	39 kg

Network Options

Item	Model no.		Remarks				
LAN Interface Card	IPv4/IPv6, Modbus TCP supported	PRLANIF022A	When installed in the optional card slot, this card enables 24/7 monitoring of UPS operations and status, and sends				
	IPv4/IPv6, Modbus TCP/RTU supported	PRLANIF024A	email notifications to system administrators for quick actions via network in the event of a	a power failure.			
	SN002), this model enables monitor-						
Dry Contact Interface Card	Terminal block output	PRCONIF007	This card outputs no-voltage contact signals to notify UPS status.				
	D-sub output connector	PRCONIF008	A and B contacts can be selected for each signal.				
SANUPS SOFTWARE	Windows version	PMS52 00DL(2)	This is an installation-based UPS management software.				
Download version			For the latest OS support information, refer to our website. For bulk purchase of software licenses, append an appropriate	-10 (10 licenses)			
	Multi-OS version ⁽¹⁾	PMS53 00DL(2)	-suffix to the model number as on the right.	-50 (50 licenses)			
				-100 (100 licenses)			

(1) Supports Windows, Unix, and Linux.

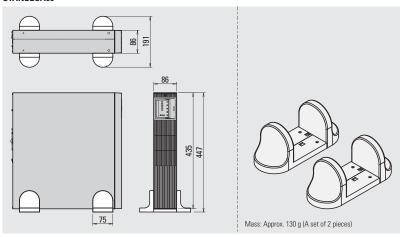
(2) The 's denote revision characters.

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

Dimensions of Options (Unit: mm)

Vertical Stands

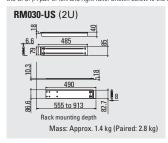
STAND2UA00



Rack support rails

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

Rack mounting brackets for securing a UPS in a rack come included with or installed to the UPS. (A pair of left and right rails. Shown below is the left rail.)

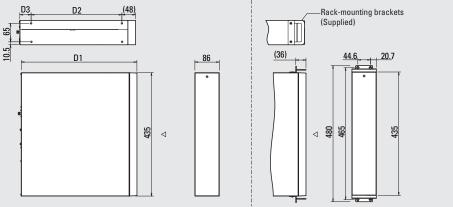


Extended battery box

Model no.	Compatible UPS capacity	Backup time ⁽¹⁾			Dimensions				Mass	
		15 min	35 min	50 min	W	D1	D2	D3	Н	
BCE11B102A01	1 kVA	1 unit	2 units	3 units	435	408	320	40	86	20 kg
BCE11B152A01	1.5 kVA	1 unit	2 units	3 units		500	412			26 kg
BCE11B202A01	2 kVA	1 unit	2 units	3 units		565	477			34 kg
BCE11B302A01	3 kVA	1 unit	2 units	3 units		750	420	202		52 kg

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

Note: Extended battery boxes are not UL-certified.



Paint color: Black (Munsell N1.5)

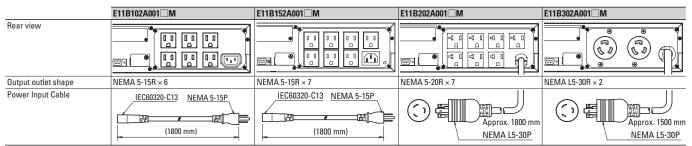
Specifications

100 v model

Model no.	ixed Double Conversion	modo)		E11B102A001AM E11B102A001DM	E11B152A001AM E11B152A001DM	E11B202A001AM E11B202A001DM	E11B302A001AM E11B302A001DM		
	capacity (apparent pov		ower)	1 kVA / 0.8 kW	1.5 kVA / 1.2 kW	2 kVA / 1.6 kW	3 kVA / 2.4 kW		
nateu output		vei / active pi	ower)	Hybrid ⁽¹⁾	1.3 KVA / 1.2 KVV	Z KVA / 1.0 KVV	3 KVA / Z.4 KVV		
Technology	Topology Cooling system								
	No. of phases/wires				Forced air cooling				
	· · · · · · · · · · · · · · · · · · ·	44		Single-phase 2-wire(2)					
	Rated voltage (Same as	s output)		100/110/115/120 V	. 4501/	A.I. II. I 400/ FF	4501/		
				At load level < 40%: 55		At load level < 40%: 55			
	Voltage range	In Double Conversion mode		At load level < 70%: 68		At load level < 70%: 68			
				At load level ≥ 70%: 80		At load level ≥ 70%: 80	to 140 V		
	In Economy mode			Within ±8% of rated v					
AC input	Rated frequency			50/60 Hz (auto-sensing					
		Fixed Doubl	le Conversion mode		equency (Synchronization i	range)			
	Frequency range			40 to 120 (Asynchrono					
		In automati	c transfer setting			g is $\pm 3\%$. Synchronization r	ange)		
				40 to 120 (Asynchrono					
	Required capacity ⁽⁴⁾			1.1 kVA or less 0.95 or greater	1.5 kVA or less	2.2 kVA or less	3 kVA or less		
	Input power factor	put power factor							
	No. of phases/wires			Single-phase 2-wire					
	Rated voltage (Change	Rated voltage (Changeable with settings)			tory setting: 100 V)				
	Voltage regulation	In Double C	onversion mode	Within ±2% of rated voltage					
	In Economy mode		mode mode	Within -10 to +8% of ra	ited voltage				
	Rated frequency (same	as input)		50/60 Hz					
		In grid Fixed Double Conversion mode		Within ±1% of rated fr	equency				
	Frequency regulation	operation	In automatic transfer setting	Within ±1/3/5% of rate	d frequency (Factory settin	g: ±3%)	•		
		In battery o	peration	Within ±0.5% of rated	frequency (This applies in a	asynchronous operation too			
AC output	Voltage harmonic distortion		At linear load	3% or less		,			
	(At rated output)		At rectifier load	8% or less					
	Load power factor	-		0.8 lagging (Variation r	ange: 0.7 lagging to 1.0)				
		For abrupt load change			oltage (For 0⇔100% load st	ep changes at rated input)			
	Transient voltage	For loss or return of input power		Within ±5% of rated voltage (At rated output)					
	fluctuation		nput voltage change	Within ±5% of rated voltage (For ±10% abrupt change)					
	Overcurrent protection			Automatic transfer to bypass (With automatic retransfer function)					
		Inverter	In Double Conversion mode	105% (for 200 ms)					
	Overload capability	Bypass		200% (for 30 s), 800% (for 2 cycles)				
	Туре	71			ılated lead-acid (VRLA) batt	erv			
	Battery backup time(5)			3 min (5 min)					
Battery	Expected life (6)			Approx. 5 years					
Dutto.,	Battery capacity (At 15-	-minute rate)		34 W (2 series)	34 W (3 series)	34 W (4 series)	34 W (6 series)		
	Battery self-test	aco raco,		Automatic	01 11 (0 001100)	01 11 (1 001100)	01111007		
	PC port				(Cannot be used at the san	ne time)			
	Remote port			Remote ON/OFF	Tournot be abou at the our	no unio;			
Interface	Dry contact output			· · · · · · · · · · · · · · · · · · ·	terface card is required				
	Network support			Optional LAN interface	· · · · · · · · · · · · · · · · · · ·				
Acquetic noi	se (In Double Conversion mo	nda)		48 dB	51 dB	55 dB			
			utput, after battery charging completed)	130 W	195 W	260 W	390 W		
	e current (This applies duri			3 mA or less	100 44	3.5 mA or less	000 44		
Operating en		ing asymonic onoc	as operation too,		-10 to ±55°C (8) relative humi	dity: 20 to 90% (non-condens	einal		
<u> </u>	- (0)					ity: 20 to 90% (non-condensi	-		
EMC standar				VCCI Class A	13 to 700 G, relative Hullilu	ity. 20 to 30 /0 (11011-6011081151	1197		
Separate opt				VOOI CIASS A					
Vertical stand				STAND2UA00					
Floor mounting							EM2HA01		
Rack support	<u> </u>			FM2UA00			FM2UA01		
				RM030	C DDE11D1E040000	C DDE11D202A0002	C DDE11D00040000		
Air filter(11)	battery pack model no.			S-BPE11B102A0003	S-BPE11B152A0003	S-BPE11B202A0003	S-BPE11B302A0003		
				FL011					

- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double
- Conversion mode for applications that require uninterrupted transfer.

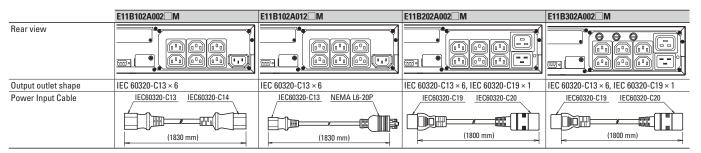
 (2) If single-wire grounding the AC input and output, set the input/output ground phase according to the UPS specification. The W (N) terminal of AC input (S phase) and the W (N) terminal of AC output (V phase) are to be grounded.
- (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (1, 3, or 5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) 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.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two to six months.
- (10) Used for mounting the UPS on a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.



200 v model

				E11B102A002AM	E11B102A012AM	E11B202A002AM	E11B302A002AM	
					E11B102A012DM	E11B202A002DM		
lated outpu	1 7 . 11	er / active po	ower)			2.0 kVA / 1.6 kW	3 kVA / 2.4 kW	
echnology								
				Forced air cooling				
				Single-phase 2-wire ⁽²⁾				
	Rated voltage (Same as	output)						
				At load level < 40%: 11	0 to 300 V	At load level < 40%: 110	to 300 V	
	Voltage range	In Double Co	onversion mode	At load level < 70%: 136 to 288 V At load level < 70%: 136 to 280 V				
Rated output capacity (apparent power / active power) 1 kVA / 0.8 kW	0 to 288 V	At load level ≥ 70%: 160	to 280 V					
		In Economy	mode	Within ±8% of rated v	oltage		### #################################	
C input	Rated frequency			50/60 Hz (auto-sensing	(3)			
		Eivad Daubl	a Conversion mode	Within ±1% of rated for	equency (Synchronization	range)		
	Fraguenauranga	Liven Donnie Collinei Sioli Illone		40 to 120 (Asynchrono	us operation range)			
	rrequency range			Within ±1/3/5% of rate	d frequency (Factory settir	ng is $\pm 3\%$. Synchronization ra	inge)	
		In automatic	c transfer setting	40 to 120 (Asynchrono	us operation range)		-	
	Required capacity(4)			1.1 kVA or less		2.2 kVA or less	3 kVA or less	
						1	1	
				-				
	·				Factory setting: 200 V)			
	Voltage regulation			<u> </u>				
					iou voitago			
	natou noquonoy (oumo	· ·	Fixed Double Conversion mode		earrency			
	Frequency regulation	_			!	na: +3%)		
	Trequency regulation			Within ±0.5% of rated frequency (This applies in asynchronous operation too)				
	Voltago barmania diata		i -		rrequency (This applies in	asyliciliollous operation tool		
	· ·	D-4-4	At recuirer load		0.71			
	Load power factor							
	Transient voltage	<u> </u>						
	fluctuation							
		For abrupt ii	nput voitage change					
	Overcurrent protection	I		Automatic transfer to bypass (With automatic retransfer function)				
	Overload capability		In Double Conversion mode					
		Bypass						
					ılated lead-acid (VRLA) bat	tery		
Battery								
		minute rate)				34 W (4 series)	34 W (6 series)	
	· · · · · · · · · · · · · · · · · · ·						3 kVA or less 3 kVA or les	
					(Cannot be used at the sar	ne time)		
nterface	Remote port			Remote ON/OFF				
				Optional dry contact interface card is required				
	Network support			Optional LAN interface	card is required			
Acoustic no	ise (In Double Conversion mo	ide)				55 dB		
leat dissipa	ation (In Double Conversion n	node at rated ou	tput, after battery charging completed)	130 W		260 W	390 W	
nput leakag	ge current (This applies duri	ng asynchronou	s operation too)	3 mA or less		3.5 mA or less		
				Ambient temperature:	-10 to +55°C,(8) relative humi	dity: 20 to 90% (non-condens	ing)	
torage env	rironment ⁽⁹⁾			Ambient temperature:	-15 to +60°C; relative humid	lity: 20 to 90% (non-condensir	ng)	
MC standa	rd			VCCI Class A				
eparate op	tions							
ertical star				STAND2UA00			_	
	ing brackets			FM2UA00			FM2UA01	
				RM030				
Rack suppoi								
Rack suppor Replacemer	nt battery pack model no.			S-BPE11B102A0003		S-BPE11B202A0003	S-BPE11B302A0003	

- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double Conversion mode for applications that require uninterrupted transfer.
- (2) 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.
- (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (1, 3, or 5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) 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.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation.
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two to six months.
- (10) Used for mounting the UPS on a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.



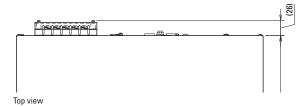
Specifications

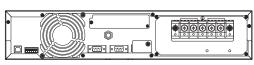
	Il block type			100 v model		200 v model			
Model no.				E11B202A001AMT	E11B302A001AMT	E11B202A002AMT			
	Fixed Double Conversion	-		E11B202A001DMT	E11B302A001DMT	E11B202A002DMT	_		
ated outpu	t capacity (apparent pov	ver / active p	ower)	2 kVA / 1.6 kW	3 kVA / 2.4 kW	2 kVA / 1.6 kW	3 kVA / 2.4 kW		
echnology	Topology			Hybrid ⁽¹⁾					
	Cooling system			Forced air cooling					
	No. of phases/wires			Single-phase 2-wire(2)					
	Rated voltage (Same as	s output)		100/110/115/120 V		200/208/220/230/240 V			
				At load level < 40%: 55 to 150 V At load level < 40%: 110 to 300 V					
	Voltage range	In Double C	Conversion mode	At load level < 70%: 68					
		I - F		At load level ≥ 70%: 80		At load level ≥ 70%: Ibt	J TO 28U V		
Cinnut	Dated from on an	In Economy	/ illode	Within ±8% of rated v					
C input	Rated frequency	1		50/60 Hz (auto-sensing	equency (Synchronization i	rangal			
		Fixed Doub	le Conversion mode	40 to 120 (Asynchronou		ange)			
	Frequency range					a in +2% Cunchronization	·angal		
		In automatic transfer setting		40 to 120 (Asynchronou		y is ±3/0. Synthionization i	anye)		
	Required capacity ⁽⁴⁾			2.2 kVA or less	3 kVA or less	2.2 kVA or less	2 kV/A or loss		
	Input power factor			0.95 or greater	0 KAW 01 1699	2.2 NVM UI 1835	10 to 300 V 136 to 280 V 136 t		
	No. of phases/wires			-			el < 40%: 110 to 300 V el < 70%: 136 to 280 V el ≥ 70%: 160 to 280 V el ≥ 70%: 160 to 280 V ess 3 kVA or less /230/240 V (Factory setting: 200 V) us operation too) ted input)		
	Rated voltage (Change:	ahla with sot	tings	Single-phase 2-wire 100/110/115/120 V (Fact	ory sotting: 100 V/	200/208/220/230/240 \/ /	Factory cotting: 200 \/\		
		,	Conversion mode	Within ±2% of rated v		200/200/220/230/240 V (i actory setting. 200 V)		
	Voltage regulation	In Economy		Within -10 to +8% of ra	.				
	Rated frequency (same		mous	50/60 Hz	iou voitay e				
	nated frequency (same	In grid	Fixed Double Conversion mode	Within ±1% of rated fr	eallency				
	Frequency regulation	operation	In automatic transfer setting		ed frequency (Factory settin	a: +3%)			
	Trequency regulation	In battery o				g. ±3707 ing asynchronous operation	tool		
C output	Voltage harmonic disto	* *		3% or less	rrequericy (Triis applies dui	ing asyncinonous operation	1 100)		
io output	(At rated output)	10011	At rectifier load	8% or less					
	Load power factor	Rated	Actobiliorious	0.8 lagging (Variation ra	ange: 0.7 lagging to 1.0)				
			load change		oltage (For 0⇔100% load st	en changes at rated input)			
	Transient voltage		urn of input power	Within ±5% of rated v	•	op onangoo ar ratoa mpat,			
	fluctuation		input voltage change		oltage (For ±10% abrupt ch	nange)			
	Overcurrent protection				ypass (With automatic retr				
	·	Inverter	In Double Conversion mode	105% (for 200 ms)	71	,			
	Overload capability	Bypass		200% (for 30 s), 800% (f	or 2 cycles)				
	Туре				lated lead-acid (VRLA) batt	ery			
	Battery backup time(5)			3 min (5 min)	. , ,				
Battery	Expected life ⁽⁶⁾			Approx. 5 years					
	Battery capacity (At 15	-minute rate)		34 W (4 series)	34 W (6 series)	34 W (4 series)	34 W (6 series)		
	Battery self-test			Automatic			### ##################################		
	PC port			RS-232C, USB Type B ⁽⁷⁾ (Cannot be used at the same time)					
nterface	Remote port			Remote ON/OFF					
iterrace	Dry contact output			Optional dry contact in	terface card is required				
	Network support			Optional LAN interface	card is required				
Acoustic no	ise (In Double Conversion mo	ode)		55 dB					
leat dissipa	ation (In Double Conversion n	node at rated or	utput, after battery charging completed)	260 W	390 W	260 W	390 W		
	ge current (This applies duri	ng asynchrono	us operation too)	3.5 mA or less					
	nvironment				· · · · · · · · · · · · · · · · · · ·	dity: 20 to 90% (non-condens	-		
torage env					15 to +60°C; relative humidi	ty: 20 to 90% (non-condensi	ng)		
MC standa				VCCI Class A					
Separate op	ntions								
ertical star				STAND2UA00	-	STAND2UA00	-		
	ing brackets			FM2UA00	FM2UA01	FM2UA00	FM2UA01		
Rack suppor				RM030					
	nt battery pack model no.			S-BPE11B202A0003	S-BPE11B302A0003	S-BPE11B202A0003	S-BPE11B302A0003		
Air filter(11)				FL011					

- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double
- Conversion mode for applications that require uninterrupted transfer. (2) 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.

 (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (±1/3/5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) At a 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries. In parentheses are values at a 0.7 load power factor.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation.
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two to six months.
- (10) Used for mounting the UPS in a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.

Terminal block portion





100 v model UL/CE certified models

Model no.	ixed Double Conversion	mode)		E11B102A001AMUJ	E11B152A001AMUJ	E11B202A001AMUJ			
-		mode)		E11B102A001DMUJ	E11B152A001DMUJ				
L-registere		uar / aatiua n	nuar)	E11B102U001J	E11B152U001J	E11B202U001J			
ateu outpui	t capacity (apparent pov	ver / active pr	Jweij	1 kVA / 0.8 kW Hybrid ⁽¹⁾	1.5 kVA / 1.2 kW	Z KVA / 1.0 KVV	3 KVA / Z.4 KVV		
echnology	Topology Cooling system			•					
	No. of phases/wires			Forced air cooling Single-phase 2-wire ⁽²⁾					
	Rated voltage (Same a	e outnut)		100/110/115/120 V					
	riated voltage (ballie a	Jourpur		At load level < 40%: 55 t	n 150 V	At load level < 40%: 55	to 150 V		
		In Double C	onversion mode	At load level < 40%. 33 to 130 V At load level < 70%: 68 to 144 V At load level < 70%: 68 to 140 V					
	Voltage range	III Double o					18 18 18 18 18 18 18 18		
		In Economy	mode	Within ±8% of rated voltage		710104410101 = 7070100			
C input	Rated frequency			50/60 Hz (auto-sensing)					
	,	T			equency (Synchronization r	ange)	vel < 70%: 68 to 140 V vel ≥ 70%: 80 to 140 V cel ≥ 70%: 80 to 140		
	_	Fixed Doubl	e Conversion mode	40 to 120 (Asynchronou					
	Frequency range				_	g is ±3%. Synchronization r	ange)		
		In automati	c transfer setting	40 to 120 (Asynchronou					
	Required capacity(4)	1		1.1 kVA or less	1.5 kVA or less	2.2 kVA or less	E11B302U001J E11B302U001J EW 3 kVA / 2.4 kW Sel < 40%: 55 to 150 V El < 70%: 68 to 140 V El > 70%: 80 to 140 V El > 70%: 80 to 140 V El > 80 to 140		
	Input power factor			0.95 or greater	'	<u>'</u>	<u>'</u>		
	No. of phases/wires			Single-phase 2-wire					
	Rated voltage (Changeable with settings)			100/110/115/120 V (Fact	ory setting: 100 V)				
	Voltage regulation	In Double C	onversion mode	Within ±2% of rated vo	ltage				
	voitage regulation	In Economy mode		Within -10 to +8% of rat	ed voltage				
	Rated frequency (same	requency (same as input)		50/60 Hz					
		In grid	Fixed Double Conversion mode	Within ±1% of rated fr	equency				
	Frequency regulation	operation	In automatic transfer setting	Within ±1/3/5% of rate	d frequency (Factory setting	g: ±3%)	-		
		In battery o	peration	Within ±0.5% of rated	frequency (This applies dur	ing asynchronous operation	too)		
C output V	Voltage harmonic distortion		At linear load	3% or less					
	(At rated output)	t rated output) At rectifier load		8% or less					
	Load power factor	Rated		0.8 lagging (Variation ra	nge: 0.7 lagging to 1.0)				
	Transient voltage			Within ±5% of rated vo	ltage (For 0⇔100% load ste	ep changes at rated input)			
	fluctuation			Within ±5% of rated vo	ltage (At rated output)				
	nactaation	For abrupt i	nput voltage change	Within ±5% of rated voltage (For ±10% abrupt change)					
	Overcurrent protection			Automatic transfer to bypass (With automatic retransfer function)					
	Overload capability	Inverter	In Double Conversion mode	105% (for 200 ms)					
	, ,	Bypass		200% (for 30 s), 800% (for			t)		
	Туре				ated lead-acid (VRLA) batte	ry			
	Battery backup time ⁽⁵⁾			3 min (5 min)					
lattery	Expected life(6)			Approx. 5 years					
	Battery capacity (At 15	-minute rate)		34 W (2 series)	34 W (3 series)	34 W (4 series)	34 W (6 series)		
	Battery self-test			Automatic					
	PC port				(Cannot be used at the sam	e time)			
iterface	Remote port			Remote ON/OFF					
	Dry contact output			Optional dry contact int	· · · · · · · · · · · · · · · · · · ·				
	Network support	- 4-1		Optional LAN interface		EE ID			
	se (In Double Conversion m		struct often bettery observing according	45 dB	51 dB	55 dB	200 11/		
		node at rated of	tput, after battery charging completed)	130 W	195 W	260 W 3.5 mA or less	220 AA		
put leakag				3 mA or less	10 to 140°C (8) relative burnid		ing)		
perating er torage envi	ironment			· · · · · · · · · · · · · · · · · · ·		•			
afety stand									
MC standaı				<u> </u>			· · · · · · · · · · · · · · · · · · ·		
eparate op				vooi ciass A, Foc Fail 13	υμυραιτ υ Glass A, ΕΝ 02040-2	OZ.ZUTU, LIN DUUZZ.ZUTU UIdSS A,	LIN 02040-2.2000, EIN 00024:		
ertical stan				STAND2UA00					
	ng brackets			FM2UA00			- FM2HΔ01		
ack suppor	-			RM030			INIZUAUI		
ir filter ⁽¹¹⁾	t ruilo			FL011					
ii iiifel.				LUII					

- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double Conversion mode for applications that require uninterrupted transfer.
- (2) 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.
- (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (±1/3/5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) At a 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries. In parentheses are values at a 0.7 load power factor.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation.
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two to six months.
- (10) Used for mounting the UPS in a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.

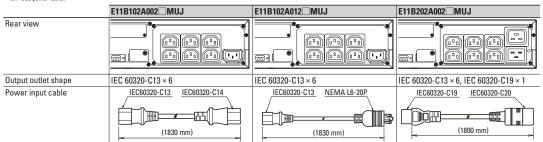
	E11B102A001 MUJ	E11B152A001 MUJ	E11B202A001 MUJ	E11B302A001 MUJ
Rear view				
Output outlet shape	NEMA 5-15R × 6	NEMA 5-20R × 7	NEMA L5-30R × 2	NEMA L5-30R × 2
Power input cable	IEC60320-C13 NEMA 5-15P	IEC60320-C19 NEMA 5-20P	Approx. 1800 mm NEMA L5-30P	Approx. 1500 mm

Specifications

200 v model UL/CE certified models

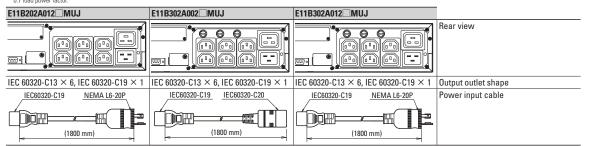
Model no.				E11B102A002AMUJ	E11B102A012AMUJ	E11B202A002AMUJ		
Model no. (F	ixed Double Conversio	n mode)		E11B102A002DMUJ	E11B102A012DMUJ	E11B202A002DMUJ		
JL-registere				E11B102U002J	E11B102U002J	E11B202U002J		
Rated outpu	t capacity (apparent po	ower / active	power)	1 kVA / 0.8 kW		2 kVA / 1.6 kW		
echnology	Topology			Hybrid ⁽¹⁾				
eciliology	Cooling system			Forced air cooling				
	No. of phases/wires			Single-phase 2-wire(2)				
	Rated voltage (Same a	as output)		200/208/220/230/240 V				
				At load level < 40%: 110 to 300	V	At load level < 40%: 110 to 300 \		
	Voltage range	In Double C	onversion mode	At load level < 70%: 136 to 288	V	At load level < 70%: 136 to 280 \		
	Voltage range		•	At load level ≥ 70%: 160 to 288	V	At load level ≥ 70%: 160 to 280 \		
		In Economy	mode	Within ±8% of rated voltage				
C input	Rated frequency			50/60 Hz (auto-sensing ⁽³⁾)				
		Fixed Doubl	e Conversion mode	Within ±1% of rated frequen				
	Frequency range	I IXEU DUUDI		40 to 120 (Asynchronous oper	ation range)			
	rrequency range	In automatic transfer setting		Within ±1/3/5% of rated frequ	iency (Factory setting is $\pm 3\%$. Syr	nchronization range)		
		iii autoillati	c transfer setting	40 to 120 (Asynchronous oper	ation range)			
	Required capacity ⁽⁴⁾			1.1 kVA or less		2.2 kVA or less		
	Input power factor			0.95 or greater				
	No. of phases/wires			Single-phase 2-wire				
	Rated voltage (Changeable with settings)		200/208/220/230/240 V (Factory	setting: 200 V)				
	Voltage regulation	In Double Conversion mode		Within ±2% of rated voltage				
	voitage regulation	In Economy mode		Within -10 to +8% of rated voltage				
	Rated frequency (sam	e as input)		50/60 Hz				
		In grid	Fixed Double Conversion mode	Within ±1% of rated frequen	су			
	Frequency regulation	operation	In automatic transfer setting	Within ±1/3/5% of rated frequ	uency (Factory setting: ±3%)			
		In battery o	peration	Within ±0.5% of rated freque	ncy (This applies in asynchronous	operation too)		
	Voltage harmonic distortion At linear load		3% or less					
	(At rated output) At rectifier load			8% or less				
	Load power factor	Rated		0.8 lagging (Variation range: 0	7 lagging to 1.0)			
	T	For abrupt I	oad change	Within ±5% of rated voltage (For 0⇔100% load step changes at rated input)				
	Transient voltage fluctuation	For loss or i	return of input power	Within ±5% of rated voltage (At rated output)				
	liuctuation	For abrupt input voltage change		Within ±5% of rated voltage (For ±10% abrupt change)				
	Overcurrent protection	n		Automatic transfer to bypass (With automatic retransfer function)				
	Overland conchility	Inverter	In Double Conversion mode	105% (for 200 ms)				
	Overload capability	Bypass		200% (for 30 s), 800% (for 2 cy	cles)			
	Туре			Small-sized valve-regulated le	ead-acid (VRLA) battery			
	Battery backup time(5)			3 min (5 min)				
attery	Expected life (6)			Approx. 5 years				
	Battery capacity (At 1	5-minute rate	1)	34 W (2 series)		34 W (4 series)		
	Battery self-test			Automatic				
	PC port			RS-232C, USB Type B ⁽⁷⁾ (Canno	ot be used at the same time)			
	Remote port			Remote ON/OFF				
iterface	Dry contact output			Optional dry contact interface	card is required			
	Network support			Optional LAN interface card is	required			
coustic no	ise (In Double Conversion m	ode)		48 dB	-	55 dB		
eat dissipa	ntion (In Double Conversion i	mode at rated ou	tput, after battery charging completed)	130 W		260 W		
put leakag	je current			3 mA or less		3.5 mA or less		
perating e	nvironment			Ambient temperature: -10 to +	40°C,(8) relative humidity: 20 to 90%	(non-condensing)		
	rironment ⁽⁹⁾				60°C, relative humidity: 20 to 90% (
afety stand	dards			·		n), CE marking (EN 62040-1:2008/A1:2013)		
MC standa						022:2010 Class A, EN 62040-2:2006, EN 55024:20		
eparate op								
ertical star				STAND2UA00				
	ing brackets			FM2UA00				
ack suppoi				RM030				
				FL011				

- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double Conversion mode for applications that require uninterrupted transfer.
- (2) 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.
- (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (±1/3/5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) At a 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries. In parentheses are values at a 0.7 load power factor.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation.
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two
- (10) Used for mounting the UPS in a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.

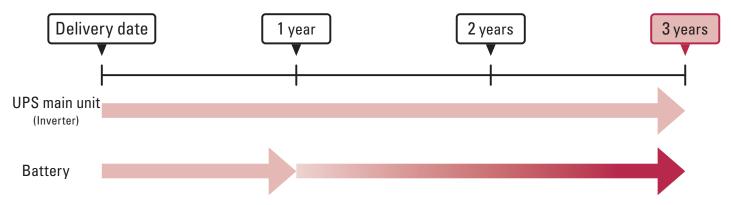


E11B202A012AMUJ	E11B302A002AMUJ	E11B302A012AMUJ	Model no.					
E11B202A012DMUJ	E11B302A002DMUJ	E11B302A012DMUJ	Model no. (Fixed Double Conv	version mode	<u> </u>			
E11B202U002J	E11B302U002J	E11B302U002J	UL-registered no.					
2 kVA / 1.6 kW	3 kVA / 2.4 kW		Rated output capacity (appar	ent power / a	ictive power)			
Hybrid ⁽¹⁾	<u> </u>		Topology	· ·		Technology		
Forced air cooling				Cooling system				
Single-phase 2-wire(2)				No. of phases/wires				
200/208/220/230/240 V			-	Rated voltage (Same as output)				
At load level < 40%: 110 to 300	V			/		-		
At load level < 70%: 136 to 280			In Double Conversion made	In Double Conversion mode Voltage range				
At load level ≥ 70%: 160 to 280			III Boabio conversion mode					
Within ±8% of rated voltage		•	In Economy mode					
50/60 Hz (auto-sensing ⁽³⁾)			Rated frequency			AC input		
Within ±1% of rated frequency	ou (Synahranization ranga)		mateu nequency			- Ac iliput		
			Fixed Double Conversion mod	le				
40 to 120 (Asynchronous operation)				Frequency range				
	uency (Factory setting is ±3%. Syn	In automatic transfer setting						
40 to 120 (Asynchronous opera			2 1 1 1 10			4		
2.2 kVA or less	3 kVA or less		Required capacity ⁽⁴⁾			_		
0.95 or greater			Input power factor					
Single-phase 2-wire			No. of phases/wires					
200/208/220/230/240 V (Factory	/ setting: 200 V)		Rated voltage (Changeable w	rith settings)				
Within ±2% of rated voltage	_	_	Fixed Double Conversion mod	Fixed Double Conversion mode				
Within -10 to +8% of rated volt	tage	In Economy mode	In Economy mode Voltage regulation					
50/60 Hz		Rated frequency (same as ing	Rated frequency (same as input)					
Within ±1% of rated frequency	су	Fixed Double Conversion mod	le In grid		7			
Within ±1/3/5% of rated frequ	uency (Factory setting: ±3%)		In automatic transfer setting	operation	Frequency regulation			
	ncy (This applies during asynchron	ous operation too)	In battery operation					
3% or less	, , בבריים בבייוק בבי,		At linear load	Voltage ha	armonic distortion	AC output		
8% or less			At rectifier load	(At rated of		, to output		
0.8 lagging (Variation range: 0.	7 lagging to 1.0)		Rated	(/ tt ratou t	Load power factor	-		
	(For 0⇔100% load step changes at	rated input)	For abrupt load change		Load power ractor	-		
Within ±5% of rated voltage (rateu iriput/		For loss/return of input power Transient voltage				
				- Ituctuation				
Within ±5% of rated voltage (1		For abrupt input voltage change				
	(With automatic retransfer function	1	<u> </u>	Overcurrent protection				
105% (for 200 ms)			In Double Conversion mode	Inverter	Overload capability			
200% (for 30 s), 800% (for 2 cyc			Bypass		, ,			
Small-sized valve-regulated le	ead-acid (VRLA) battery			Туре				
3 min (5 min)				Battery backup time ⁽⁵⁾				
Approx. 5 years			Expected life ⁽⁶⁾			Battery		
34 W (4 series)	34 W (6 series)		Battery capacity (At 15-minut	e rate)				
Automatic			Battery self-test					
RS-232C, USB Type B ⁽⁷⁾ (Canno	ot be used at the same time)		PC port					
Remote ON/OFF			Remote port			Interface		
Optional dry contact interface	card is required		Dry contact output			Interrace		
Optional LAN interface card is	s required		Network support					
55 dB	•		Acoustic noise (In Double Conver	rsion mode)		'		
260 W	390 W		Heat dissipation (In Double Conv	ersion mode at r	ated output, after battery char	ging completed)		
3.5 mA or less	1		Input leakage current					
Ambient temperature: -10 to +	40°C,(8) relative humidity: 20 to 90% (non-condensina)	Operating environment					
	Storage environment ⁽⁹⁾							
	Ambient temperature: -15 to +60°C, relative humidity: 20 to 90% (non-condensing) UL 1778 5th edition (E226092), CSA C22.2 No. 107.3-14 (3rd edition), CE marking (EN 62040-1:2008/A1:2013)							
		2:2010 Class A, EN 62040-2:2006, EN 55024:2	Safety standards D10 EMC standard					
voor crass A, roo Fart 13 Subpar	LD GIGSS M, LIN 02040-2 GZ.2010, EN 3302	.2.2010 Glass A, LIN 02040-2.2000, EIN 33024:20	Separate options					
CTANDOLLAGO			Vertical stands					
STAND2UA00								
FM2UA00	FM2UA01		Floor mounting brackets					
RM030			Rack support rails(10)					
FL011			Air filter(11)					

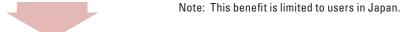
- (1) When the UPS transfers from Economy mode to battery operation, there will be an interruption of approximately 8 ms. This can be caused by abrupt changes of input voltage or frequency while a UPS operates in Economy mode. Fix the operation mode to Double Conversion mode for applications that require uninterrupted transfer.
- (2) 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.
- (3) The inverter synchronizes with AC input and allows an uninterrupted transfer to bypass provided that the AC input frequency is within a range of the rated frequency ±3% (±1/3/5% selectable).
- (4) Max. capacity during battery recovery charging
- (5) At a 25°C ambient temperature and load power factor of 0.8, using new, fully charged batteries. In parentheses are values at a 0.7 load power factor.
- (6) At an operating temperature of 25°C.
- (7) Use of USB interface requires driver installation.
- (8) When the ambient temperature exceeds 40°C, battery charging will stop and a Device Error (minor malfunction) alarm will be generated.
- (9) Avoid use or storage in 30°C or higher temperatures for extended periods of time, or the battery life will shorten. If a UPS is to be stored for a long period, it will be necessary to recharge batteries once every two to six months.
- (10) Used for mounting the UPS in a standard 19-inch rack.
- (11) A front side air intake filter for preventing dust ingress.



UPS warranty period For warranty details, see the Warranty Card included with your UPS.



Battery warranty period is one year. It can be extended to three years by registering the UPS.



Complete registration on our website:

https://www.sanyodenki.com/



■ 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 4,800 Ah-cell. 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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