OMRON

Uninterruptible power supply (UPS)

S8BA & BU series

- The most compact design on the market
- Life expectancy of 10 years
- Push-In Plus technology for easy wiring

industrial.omron.eu/s8ba

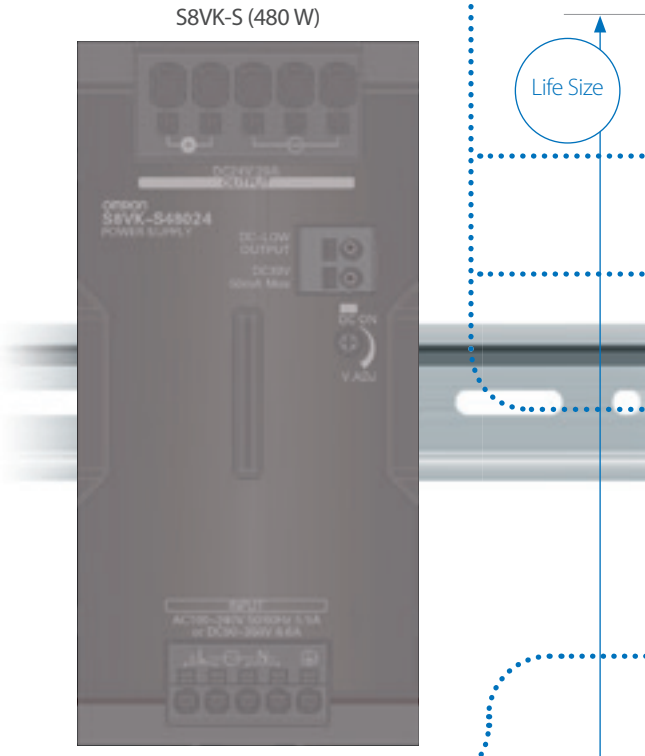
Let nothing interrupt your power

Value Design for Panel

To ensure stable power supply, also in less stable supply networks around the world, we are constantly expanding our range to include UPS systems. The series S8BA is ideal for countermeasures for instantaneous voltage drop and power interruptions.

Push-in terminal blocks provide effortless installation

Switch Mode Power Supply
S8VK-S (480 W)



Life Size

124 mm

S8BA
(Separated battery type)

3X Connection
USB - RS232C - I/O

Communication connections, allow compatibility with variety of factory automation controllers & PC's.

Separated battery type

In/Output DC24V

Li-Ion

I/O - USB RS-232

Flexible buffering time

Separated batteries can provide a power for a longtime

Backup time table (Time unit: minutes)

Model (UPS unit + battery unit)	Connection capacity (W)							
	30	60	120	240	360	480	720	960
S8BA-24D24D960SBF + S8BA-S960L (40A/960W + 7800mAh)	290	138	66	30	20	14	10	6
S8BA-24D24D480SBF + S8BA-S960L (20A/480W + 7800mAh)	290	138	66	30	20	14	–	–
S8BA-24D24D480SBF + S8BA-S480L (20A/480W + 3900mAh)	134	63	29	15	9	6	–	–

Hot - swappable batteries

Hot - swappable batteries provide uniterrupted operations at all time

Achieve this compact size with Lithium-ion battery

(480 W)
Size : (W)124 × (H)124 × (D)111 mm
Weight : 2.1 kg

Life expectancy of 10 years

Lithium-ion batteries can cut down a maintenance cost drastically

Battery HOT Swapping

cULus LISTED

CE

Downsizing

Free software

From customer problems to our solutions

Food and Beverage, Commodity

Customer Problem

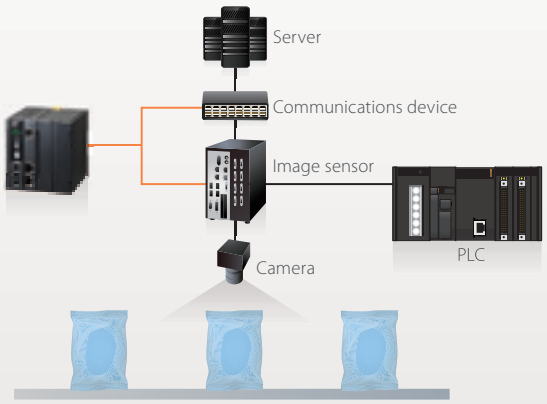
Image data lost due to momentary power interruption

Image data is saved through a network to a host system to ensure traceability during printing inspection processes in a food factory. However, a momentary power interruption, due to a lightning strike, reset the power supply to the image sensor and communications device. This prevented the image data from being saved to the host system.

Solution

Traceability ensured with the S8BA

The S8BA was used to back up the power supplies to the image sensor and communications device. This allowed the system to continue operating until the data was saved in the host system, which provided greater traceability reliability.



Example of S8BA application
Location: Food & Beverage factory
Equipment: Packaging/labeling inspection machine
Connected devices: image sensor and communications device

Customer Problem

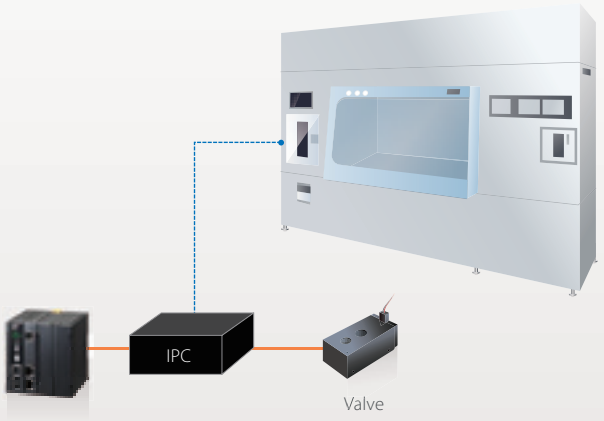
Loss of valve control due to power interruption caused by lightning strike

A lightning strike during a summer storm caused a power interruption at a factory. Due to the power interruption, it became impossible to control the valve that maintains sterile conditions for pharmaceutical manufacturing equipment. During recovery from the power interruption, the valve opened before the clean fans started their normal operation. Sterile conditions were lost, and production had to be stopped for a long time until the sterile conditions could be restored.

Solution

Control continued before and after a power interruption with the S8BA

The S8BA was used to back up an IPC and a power supply to the valve. A signal from the S8BA enables the IPC to communicate with and control the open/close of the valve during instantaneous voltage drop or power interruptions.



Example of S8BA application
Location: pharmaceuticals factory
Equipment: pharmaceutical manufacturing machine
Connected devices: IPC and valve

Automotive

Customer Problem

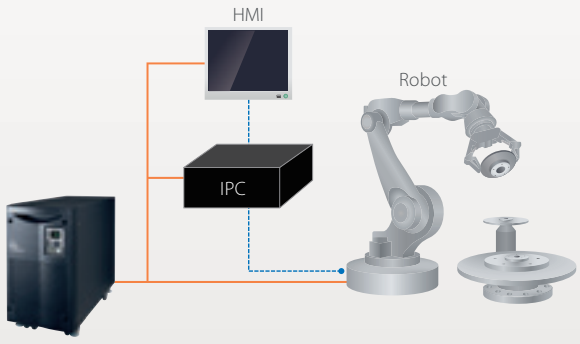
Valuable half-finished brakes are wasted due to incomplete cycles: and lost traceability data

Problems with power lines goes down in a factory, the robots can not finish the production of expensive brakes that been tested and can not save the important data such as calibration, configuration, traceability data.
The customer has to throw away half finished brakes and lose a lot of money due to an expensive automotive parts.
Even worse defective brakes may enter the market and need recalling because they lost traceability data.

Solution

The BU, AC-AC UPS promises assured continuity of cycle time and never lost data.

A stable secondary power supply, the BU enables whole the robot system to maintain the continuity of cycles protects valuable half-finished brakes before shutting down the system safely. When power goes down, the products can still be finished. The BU also means that all data remains live and can be safely backed up.



Example of BU application
Location: Automotive parts manufacturing factory
Equipment: Brake assembly robot
Connected device: Robot, inverter, PLC, HMI

Public

Customer Problem

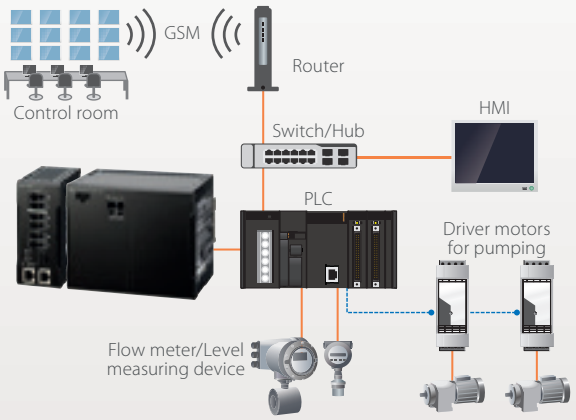
Interruption of monitoring water pumping system due to a power failure and huge maintenance cost of Lead acid battery

Always monitoring the system whether or not to work normally. Even when power goes down, must send its status if an emergency happened until a maintenance worker gets there. Because it could cause a huge damage on the system. Especially drive motors and pumping devices are quite expensive.
The water pumping points are an outland and outside under high temperature. The customer has to replace a battery every year and spend a lot of maintenance and travelling cost.

Solution

The S8BA (Separated battery type) continued to monitor for a long time and it reduced the much maintenance cost

The S8BA (Separated battery type) was used to back up the power supplies to the system for a long time monitoring until a maintenance worker got there.
The Lithium-ion battery of the S8BA is double longer life than the Lead-acid battery. The S8BA can cut down the cost of replacing the battery and travelling cost so much.



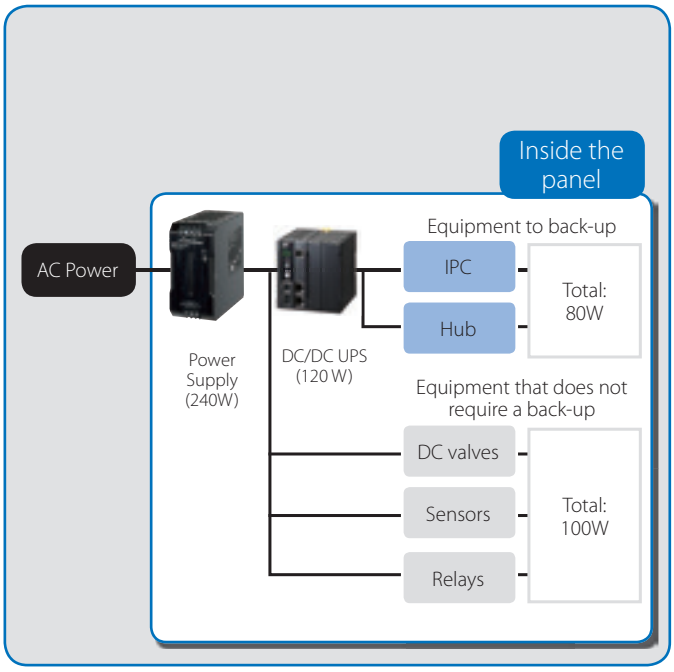
Example of S8BA application
Location: Water pumping points, outside and outland place under high temperature
Equipment: Water pumping controlling system
Connected device: PLC, Flow meter, Level measuring device, Drive motors and Communications device

How big is the machine or panel you would like to back up?

Where do you want to install UPS?

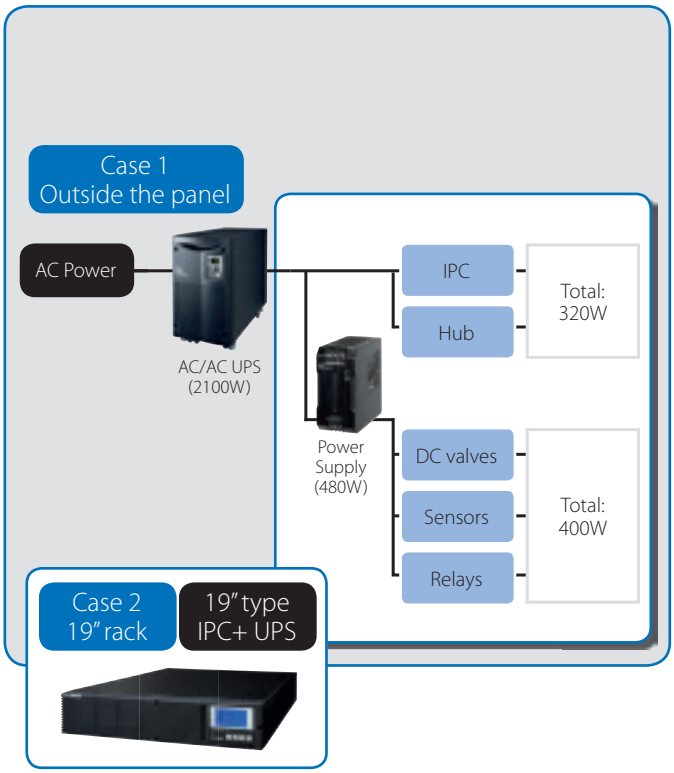
Small back-up capacity DC/DC UPS in control panel or on DIN rail

Ideal for when only a single piece of equipment or a small machine needs backing up. Suitable for harsh environments. Also at just 800g this UPS can be installed in the panel mounted on DIN railing.



Large back-up capacity AC/AC UPS in free-space or in a 19" rack

When an entire system needs backing up. This UPS can be placed outside the panel. Multiple mounting online AC-AC type can be used as a stand-alone device or for mounting in a 19" rack.

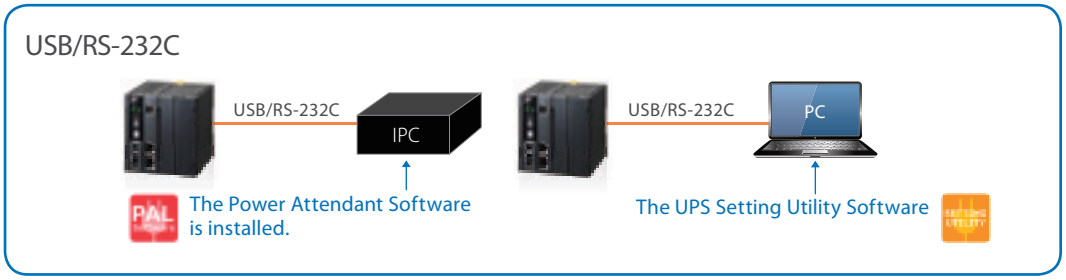


Flexibility of our UPS products

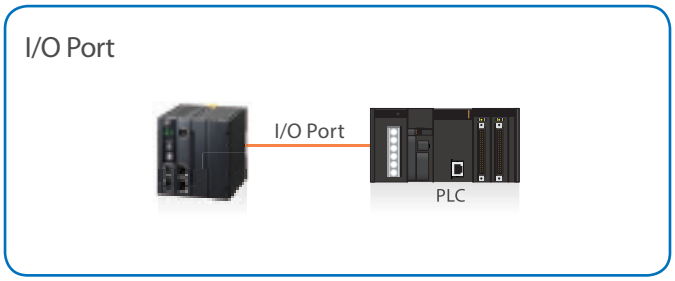
Our UPS products are compatible with all brands of IPCs. All you have to do is download and install the software from the following link: industrial.omron.eu/s8ba.

How to install S8BA with your IPC?

Connect the USB/RS-232C to the PC and make sure that you have downloaded the Software and installed it on your IPC.



Or Connect the I/O signal to the PLC.



Once the S8BA has been connected it should communicate with its I/O signal functions, below mentioned signals explain how the product communicates.

Type of output signals

Signal	Description
Backup signal output (BU)	Stays ON during backup operation at a power failure.
Battery LOW signal output (BL)	Goes ON when the battery becomes weak during backup operation at a power failure.
Trouble signal output (TR)	Goes ON when an internal failure of the UPS occurs or when the battery life counter expires.
Battery replacement signal output (WB)	Goes ON when the test determines that battery replacement is necessary due to deterioration or when the battery life counter goes off-scale.

Type of input signals

Signal	Description
Backup stop signal input (BS)	When the BS signal is ON (High), the output of the UPS is stopped after the time period specified in advance has elapsed. *
Remote ON/OFF signal	Remote ON/OFF signals can be used to start and stop the UPS, by using either an externally connected contact or the ON/OFF status of the open collector circuit. When signal is OFF, the UPS will be turned on. When signal is ON, the UPS will be turned off. In the factory settings, the UPS stops operation when this is short-circuited. In addition, it is necessary to turn on the "Power" switch of UPS to use this function.

* BS signal delay time: It is possible to set the period of time from when a BS signal is received until the output of the UPS is stopped. The output of the UPS can be stopped by inputting the voltage signal (High).

S8BA Series

Additional features:

- Wide range of power failure detection (DC24V±5%/±10%/±12.5%) can help customers to use a weak components for countermeasures for instantaneous voltage drop and power interruptions
- Support 6 IO singals: Backup (BU), Low level (BL), Trouble (TR), Battery replacement (WB) Input: UPS stop (BS), Remote On/OFF
- S8BA (integrated battery type) can supply a stable power that DC/DC Converter always can adjust the output voltage of the battery to 24Vdc.
- S8BA (separated battery type) can extend buffer time longer to change a battery unit.

Separated battery type + Battery unit

Integrated battery type

BU series

Features and benefits:

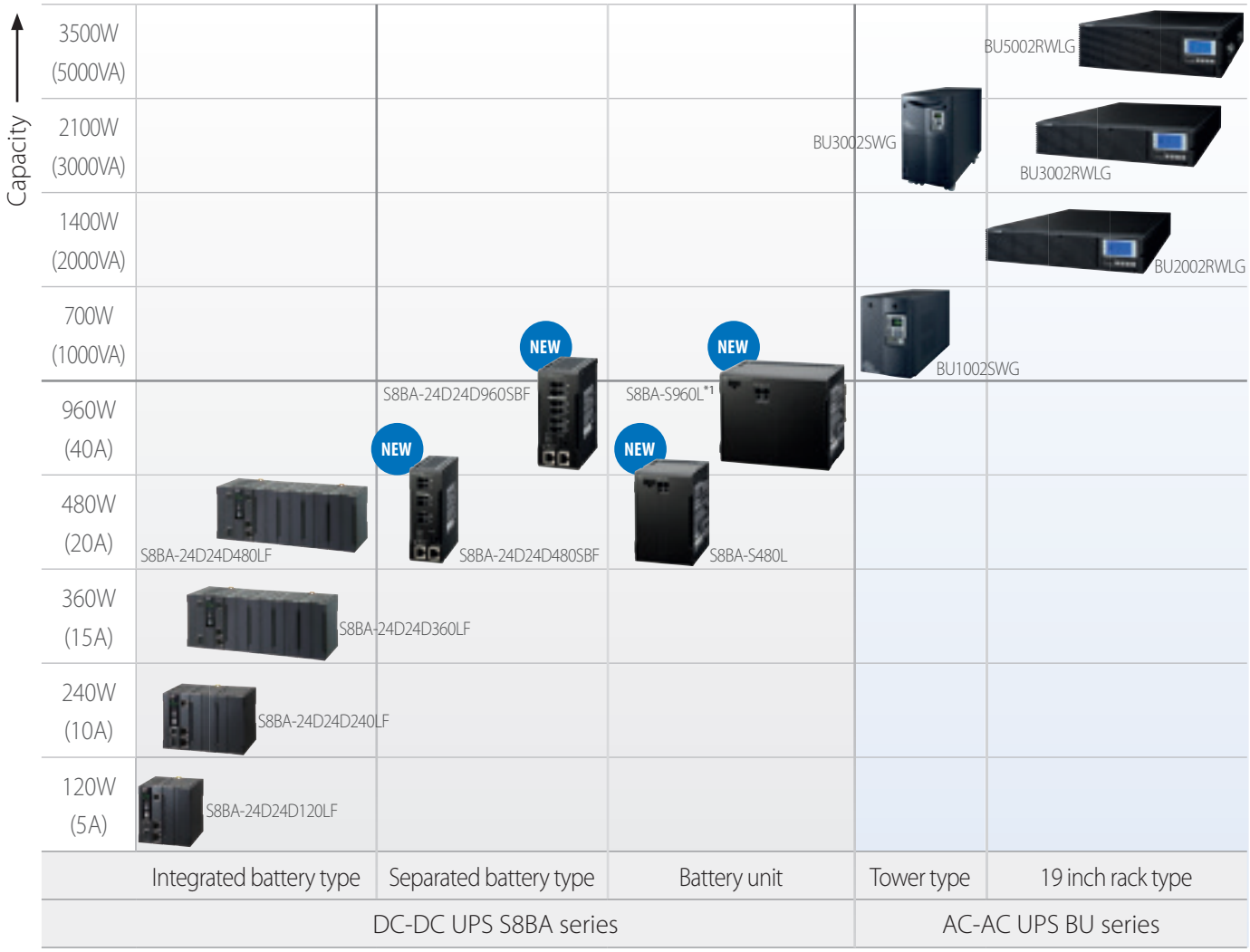
- Multiple mounting online type UPS provides a pure sine curve at the output
- Online power supply method: continuous power supply against instantaneous voltage drop or power interruptions
- Standardised one product which can be used in a variety of applications.
- Variety of I/F for industrial use needs Input/ Output Terminal, Ethernet/RS-232C/I/O signal for communication and external remote on/off signal
- LCD/7 SEG operation without PC
- Hot-swappable batteries: Ensure clean, uninterrupted power to protected equipment while batteries are being replaced

19 inch rack mount type

Tower type

Our UPS product family to fulfill back up application.

Our UPS family is structured into two different products (S8BA & BU). Products are able to support various applications such as packaging, material handling, machine tools.



In/Output DC24V · Li_Ion · I/O - USB RS-232

In/Output AC200-240V · Pb · I/O RS-232

*1 Available to use both S8BA-24D24D480SBF and S8BA-24D24D960SBF.
*2 Only the integrated battery type matches to these standards.

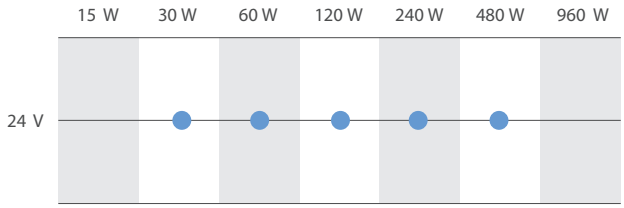
Recommended related product

Power supplies

S8VK-S

- Perfect fit for small control panels
- Coated PCBs for better resistance to environment
- Push-in Plus technolgy for easy wiring

Power rating/output voltage



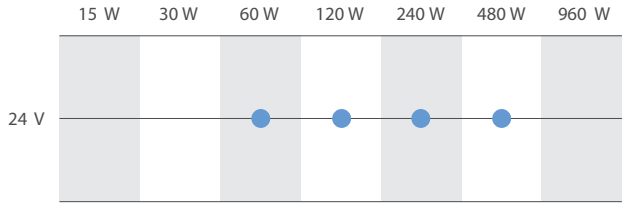
Power rating	Rated input voltage	Rated output voltage	Rated output current	Undervoltage alarm output	Maximum boost current	Size (W×H×D) (mm)	Model
30 W	100 to 240 VAC (allowable range: 85 to 264 VAC or 90 to 350 VDC)	24 V	1.3 A	No	1.56 A	32×90×90	S8VK-S03024
60 W		24 V	2.5 A	No	3 A	32×90×90	S8VK-S06024
120 W		24 V	5 A	No	6 A	55×90×90	S8VK-S12024
240 W		24 V	10 A	Yes	15 A	38×124×117.8	S8VK-S24024
480 W		24 V	20 A	Yes	30 A	60×124×117.8	S8VK-S48024

S8VK-C

Single- phase

- Cost-effective
- Universal input and Safety standards for worldwide applications

Power rating/output voltage

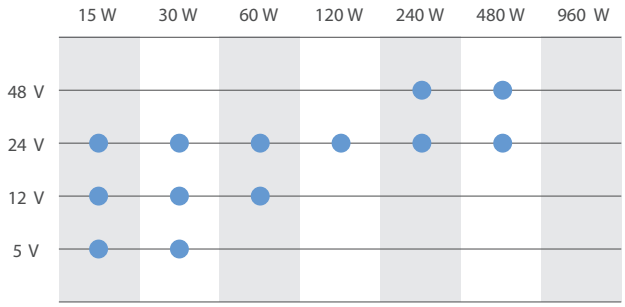


S8VK-G

Single-phase input

- Reliable and easy operation worldwide
- Resistant in tough environments
- Easy and fast installation

Power rating/output voltage

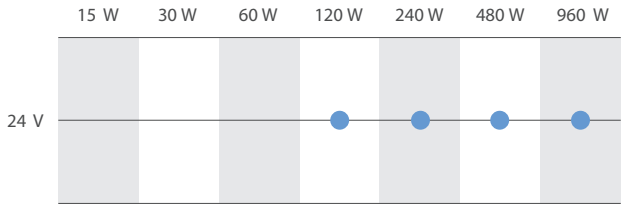


S8VK-T

Three-phase, 400-VAC input

- Resistant in tough environments
- Easy and fast installation
- Most compact class on the market

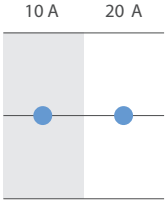
Power rating/output voltage



S8VK-R

- Redundancy Units
- Contribute to build high reliable systems
- Compact and cost-effective solution for backup applications
- Easy setup for system reliability requirement

Output current



Recommended related product

Industrial PC Platform

Industrial Panel PC NY-series

The Industrial Panel PC intelligently combines the functionality of the Industrial Box PC and Industrial Monitor. No cables are used between the two components, which ensures optimal signal distribution and reliable operation in industrial environments.

Industrial Box PC NY-series

The Industrial Box PC is designed to meet the specific needs of the industrial environment. Design simplification and future-proof architecture minimize the risk of failure.

Industrial Monitor NY-series

The Industrial Monitor is of key importance at the interface between operator and system. The Industrial Monitor is efficient, effective and highly visible with an attractive design.

Compact DC-DC UPS separated battery unit with a DIN-rail for mounting, best suited for the prevention of voltage drop and power failure in monitoring systems

- For monitoring applications, separated battery type can provide power for a longer period of time than the integrated battery one.
- Compact, weight reduction, and long battery life thanks to the adoption of a lithium-ion battery.
- Push-in terminal block adopted for the power input and output connections.
- Shutdown in conjunction with the IPC or controller realized by the USB, RS-232C, I/O port installed in the UPS.

Ordering information

Uninterruptible power supply (UPS)

UPS unit

Input voltage	Output voltage	Output current/capacity	Order code
24 VDC	24 VDC	20 A/480 W	S8BA-24D24D480SBF
		40 A/960 W	S8BA-24D24D960SBF

Battery unit

Rated input voltage	Rated capacity	Weight of unit	Order code	Applicable model
25.2 VDC	3900 mAh	1.5 kg	S8BA-S480L	S8BA-24D24D480SBF
25.2 VDC	7800 mAh	2.5 kg	S8BA-S960L	S8BA-24D24D960SBF

Communication cable

Specifications	Type	Length	Order code
For RS-232C port	RJ45/Dsub9Pin	2 m	S8BW-C01
For Contact port	RJ45/Discrete wire x 8P	2 m	S8BW-C02

Specifications

Item			480 W	960 W
DC input	Rated input voltage		24 VDC	
	Input voltage range		23 to 28 VDC	
	Input maximum current	(for rated input voltage)	21.5 A	43.5 A
	Input terminal		Push-in terminal block	
DC output	Rated current	(for rated output voltage)	20 A	40 A
	Switching time		Uninterrupted	
	Output voltage	Normal operation	Output of input voltage as-is	
		Backup operation	DC 21.0V to 28.0V	
	Output terminal		Push-in terminal block	
Battery	Type		Lithium-ion battery	
	Rated voltage		25.2 VDC	
	Rated capacity		3900 mAh	7800 mAh
	Expected battery life[*4]		1.9 years (55°C), 3.7 years (45°C), 6.7 years (35°C), 10 years (25°C)	
	Replacement by user		Yes (Hot swapping)	
	Charging time		8 hours(90 %)[*1]	
Backup time (25°C, initial characteristics)			5 min (at rated output capacity)	
Environment	Operating ambient temperature/humidity		0 to 55°/10 to 90% (with no condensation)	
	Storage ambient temperature/humidity		–20° to 55°/10 to 90% (with no condensation)	
Enclosure	Dimensions (W × D × H mm)		44 × 111.4 × 124 (UPS unit) 80 × 111.4 × 124 (Battery unit)	52 × 111.4 × 124 (UPS unit) 150 × 111.4 × 124 (Battery unit)
	Weight of unit	UPS unit	Approx. 0.6 kg	Approx. 0.7 kg
		Battery unit	Approx. 1.5 kg	Approx. 2.5 kg
	Cooling method		Natural cooling	
Safety standard compliance			UL508/CE/C22.2 No.107.1-01	
Internal power consumption (normal[*2]/maximum)			7 W/29 W	15 W/58 W

Item	Capacity	480 W	960 W
Serial communication	RS232C (Interface terminal)	Yes (RJ45)	
	USB (interface terminal)	Yes (RJ45)	
I/O signal		Yes (RJ45)	

*1 When using in an environment at a high temperature, charging may be paused by charging temperature protection, then the charging time will be longer than specified time.
*2 Conditions: With rated loads connected, at a rated input voltage, and with the battery fully charged.

Backup time table (Time unit: minutes)

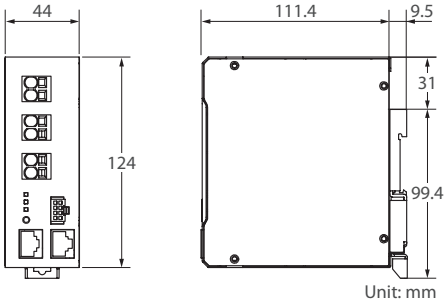
For devices that use the A indication, convert the capacity into W: W = A × 24

Model (UPS unit + battery unit)	Connection capacity (W)																	
	30	60	90	120	180	240	300	360	420	480	540	600	660	720	780	840	900	960
S8BA-24D24D960SBF + S8BA-S960L	290	138	94	66	43	30	24	20	16	14	13	12	11	10	9	8	7	6
S8BA-24D24D480SBF + S8BA-S960L	290	138	94	66	43	30	24	20	16	14	–	–	–	–	–	–	–	–
S8BA-24D24D480SBF + S8BA-S480L	134	63	41	29	19	15	11	9	8	6	–	–	–	–	–	–	–	–

Note: The above backup times are for reference only. They may change depending on the battery life and external environment (such as temperature).

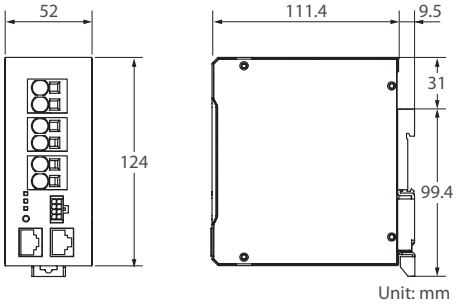
Dimensions

S8BA-24D24D480SBF (20 A)



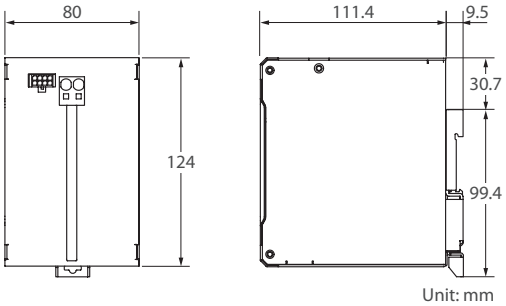
Unit: mm

S8BA-24D24D960SBF (40 A)



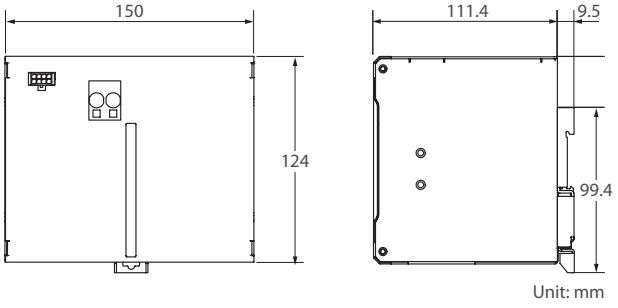
Unit: mm

S8BA-S480L (3.9 Ah)



Unit: mm

S8BA-S960L (7.8 Ah)



Unit: mm

Value Design for Panel

Compact DC-DC UPS integrated battery unit with a DIN-rail for mounting, best suited for the prevention of voltage drop and power failure in industrial PCs (IPC)/controllers

- System reliability greatly improved because 24 VDC power supply is backed up for a certain period of time in the event of voltage drop or power failure.
- Compact, weight reduction, and long battery life thanks to the adoption of a lithium-ion battery.
- Push-in terminal block adopted for the power input and output connections.
- Shutdown in conjunction with the IPC or controller realized by the USB, RS-232C, I/O port installed in the UPS.

Ordering information

Uninterruptible power supply (UPS)

Input voltage	Output voltage	Output current/capacity	Battery type	Terminal block shape	Order code
24 VDC	24 VDC	5 A/120 W	Lithium-ion battery	Push-in terminal block	S8BA-24D24D120LF
		10 A/240 W			S8BA-24D24D240LF
		15 A/360 W			S8BA-24D24D360LF
		20 A/480 W*1			S8BA-24D24D480LF

*1 16.7 A/400 W for use as a UL compliant device.

Communication cable

Specifications	Type	Length	Order code
For RS-232C port	RJ45/Dsub9Pin	2 m	S8BW-C01
For Contact port	RJ45/Discrete wire x 8P	2 m	S8BW-C02

Replacement battery pack

Rated voltage	Rated capacity	Weight	Order code
14.4 VDC	1600 mAh	0.3 kg	S8BA-B120L

Specifications

Item		Capacity	120 W	240 W	360 W	480 W*1
DC input	Rated input voltage		24 VDC			
	Input voltage range	(When standard voltage sensitivity is set)	24 VDC±10%			
		(When low voltage sensitivity is set)	24 VDC±12.5%			
		(When high voltage sensitivity is set)	24 VDC±5%			
	Input maximum current	(for rated input voltage)	5.9 A	11.7 A	17.5 A	23.3 A*2
	Input terminal		Push-in terminal block			
	Inrush current		12 A max., 0.1 ms max.	14 A max., 0.1 ms max.	16 A max., 0.1 ms max.	
DC output	Rated current	(for rated output voltage)	5 A	10 A	15 A	20 A*3
	Switching time		Uninterrupted			
	Output voltage	Normal operation	Output of input voltage as-is			
		Backup operation	24 V±5%			
	Output terminal		Push-in terminal block			
Battery	Type		Lithium-ion battery			
	Rated voltage		14.4 VDC			
	Rated capacity		1600 mAh × 1 parallel	1600 mAh × 2 parallel	1600 mAh × 3 parallel	1600 mAh × 4 parallel
	Expected battery life*4		2.5 years (50°C), 5 years (40°C), 10 years (25°C)			
	Replacement by user		Yes (Hot swapping)			
	Charging time		4 hours*5			
Backup time (25°C, initial characteristics)			6 min. (120 W)	6 min. (240 W)	6 min. (360 W)	6 min. (480 W)
Environment	Operating ambient temperature/humidity		0 to 55°/10 to 90% (with no condensation)			
	Storage ambient temperature/humidity		–20° to 55°/10 to 90% (with no condensation)			
Enclosure	Dimensions (W × D × H mm)		94 × 100 × 100	148 × 100 × 100	270 × 100 × 100	
	Weight of unit		Approx. 0.8 kg	Approx. 1.3 kg	Approx. 2.0 kg	Approx. 2.3 kg
	Cooling method		Natural cooling			
Safety standard compliance			UL508/CE/C22.2 No.107.1-01/EAC			
Marine standards			Lloyd's register/ABS/EN60945*6/DNV GL			
Internal power consumption (normal*7/maximum*8)			7 W/22 W	11 W/41 W	14 W/60 W	18 W/80 W

Item		Capacity	120 W	240 W	360 W	480 W*1
Serial communication	RS232C (Interface terminal)		Yes (RJ45)			
	USB (interface terminal)		Yes (B connector)			
I/O signal			Yes (RJ45)			

*1 400 W for use as a UL compliant device.
*2 20 A for use as a UL compliant device.
*3 16.7 A for use as a UL compliant device.
*4 An estimated value for standard mounting. Not a guaranteed value.
*5 When using in an environment at a high temperature, charging may be paused by charging temperature protection, then the charging time will be longer than specified time. "CS" will be displayed when charging temperature protection is operated.
*6 For the S8BA-24D24D120LF, install all of the RSMN-2030, RSHN-2030, and RSEN-2030 EMC filters manufactured by TDK. For the S8BA-24D24D240LF, S8BA-24D24D360LF, or S8BA-24D24D480LF, install both the RSMN-2030 and RSHN-2030 or their equivalents. Install these filters in series to the cable connected to the DC input terminal block. When you do, do not connect anything to the GR terminal.
The effectiveness of the noise filters may be affected by the installation environment. Be sure to check effectiveness before starting operation.
*7 Conditions: With rated loads connected, at a rated input voltage, and with the battery fully charged.
*8 Conditions: With rated loads connected, at a rated input voltage, and at the maximum battery charging current.

Backup time table (Time unit: minutes)

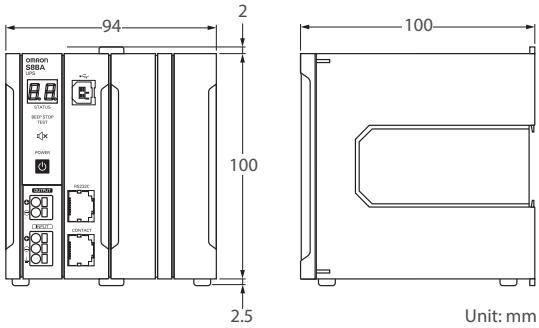
For devices that use the A indication, convert the capacity into W: W = A × 24

Model	Connection capacity (W)									
	30	60	90	120	180	240	300	360	420	480
S8BA-24D24D120LF	29	14	9	6	–	–	–	–	–	–
S8BA-24D24D240LF	58	29	19	15	9	6	–	–	–	–
S8BA-24D24D360LF	87	43	28	22	14	10	8	6	–	–
S8BA-24D24D480LF	119	59	39	29	19	15	11	9	8	6

Note: The above backup times are for reference only. They may change depending on the battery life and external environment (such as temperature).

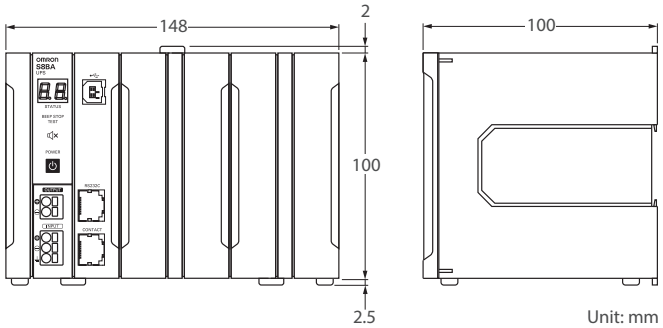
Dimensions

S8BA-24D24D120LF (120 W)



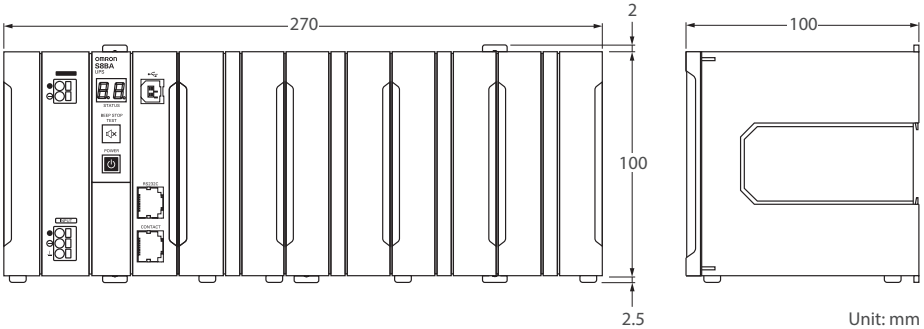
Unit: mm

S8BA-24D24D240LF (240 W)



Unit: mm

S8BA-24D24D360LF (360 W)
S8BA-24D24D480LF (480 W)



Unit: mm

Multiple mounting, High Power, Online UPS

- Online power supply method: continuous power supply against instantaneous voltage drop or power interruptions
- 7seg Operational Panel is easy to operate
- Variety of Communication I/F(USB/RS232C/I/O signal/Ethernet*1)
- Pre-installed Input/Output Terminal block & external Remote ON/OFF Signal for FA customer
- 5 Hot-swappable batteries

*1 Has to be used with optional Ethernet card "SC20G2"

Ordering information

Main body

Input voltage	Output voltage	Output current/capacity	Order code
220/230/240 VAC	220/230/240 VAC	1,000 VA/700 W	BU1002SWG
		3,000 VA/2,100 W	BU3002SWG

Related products

Description	Applicable model	Order code
Replacement battery pack	BU1002SWG	BP100XSG
	BU3002SWG	BP150XSG
Mounting bracket	BU1002SWG	BUP100SG
	BU3002SWG	BUP300SG
SNMP/Web card		SC20G2
Contact I/O card		SC08G*1

*1 The standard UPS connection signal is NPN. To use a PNP connection, replace with "SC08G" included in the package.

Specifications

Item		BU1002SWG	BU3002SWG
Method	Operation method	Full-time inverter supply method	
	Connectable devices	PC, display, and peripherals	
Input	Rated input voltage	220/230/240 VAC	
	Input voltage range	AC 185±4 to 276±4 V (with 85% or less connection load) AC 210±4 to 276±4 V (with 85% or more connection load)	
	Frequency	50/60 Hz ± 4 Hz	
	Maximum current	5.8 A	16 A
	Phase	Single-phase, two-wire	
	Input plug shape	Schuko CEE 7/7 P	Schuko CEE 7/7 P
	Input protection	Reset-type overcurrent protection device	
	Input protection capacity	10 A	20 A
Output	Allowable connection capacity*1	1000 VA/700 W	3000 VA/2100 W
	Voltage (effective value)	220 V mode AC 220 V ± 3% 230 V mode AC 230 V ± 3% 240 V mode AC 240 V ± 3%	
	Peak voltage value*2 (In Commercial Power Mode)	220 V mode: AC 310 V ± 6% 230 V mode: AC 324 V ± 6% 240 V mode: AC 338 V ± 6%	
	Peak voltage value (In Battery Mode)	220 V mode: AC 310 V+6%/-10% 230 V mode: AC 324 V+6%/-10% 240 V mode: AC 338 V+6%/-12%	
	Frequency	50/60 Hz ± 1 Hz	
	Phase	Single-phase, two-wire	
	Output waveform	Sine wave	
	Waveform distortion rate (Rectified load, at rated output)	220V mode: 10% max. 230V mode: 10% max. 240V mode: 12% max.	
	Number of output receptacles	IEC60320 C13: 3 pcs. Terminal block: 2 lines	IEC60320 C19: 1 pcs. C13: 5 pcs. Terminal block: 2 lines
	Power failure switching time	Uninterrupted	
	Commercial direct shipment (switching time)	4 m sec. max.	
	Backup time*3	Minimum 5 minutes	

Item		BU1002SWG	BU3002SWG
Battery	Type	Compact sealed lead battery	
	Sealed lead battery life expectancy	4 to 5 years (long operating life) *At ambient temperature of 20°C	
	Battery capacity (V/Ah) (× Quantity)	12 VDC/7.2 Ah (× 3)	12 VDC/8 Ah (× 6)
	Charging time	8 hours*4	
Environment	Operating ambient temperature	0 to 40°C (during operation)/–15 to 50°C (during storage)	
	Operating ambient humidity	25 to 85% RH (during use)/10 to 90% RH (during storage)	
Dimensions (W × H × D mm)		145 × 395 × 224 (±1) mm*5	213 × 537 × 432 (±1) mm*6
Weight of unit		Approx. 15.5 kg	Approx. 35 kg
Internal power consumption (max.)		50 W (100 W max.)	55 W (155 W max.)*7
Noise regulation (compliance standard)		VCCI Class A	
Safety standards / RoHS directive compliance		CE/RoHS compliance	
Noise		50 dB max.	55 dB max.
Serial communication (RS-232C) (Interface)		D-Sub 9 pin	
Serial communication (USB) (Interface)		B type*8	
Contact signal (Interface)		D-Sub 9 pin*9	

*1 Make sure that both the VA value and the W value of the load capacity connected to the UPS are within the range specified here.
*2 Before using, please be sure to check the operation in advance.
In some cases, the Peak voltage value of output in Battery Mode may be lower than the peak voltage value in commercial power supply.
*3 The backup times shown here are for when rated load is connected, at 20°C, and for initial characteristics.
*4 When an additional battery unit is connected, the charging time is 24 hours.
*5 The height includes the 13 mm height of the rubber feet.
*6 The height includes the 56 mm height of the casters.
*7 170 W max when and additional battery unit is connected.
*8 USB or RS-232C either is available. (unusable at the same time)
*9 The standard UPS connection signal is NPN. To use a PNP connection, replace with "SC08G" included in the package.

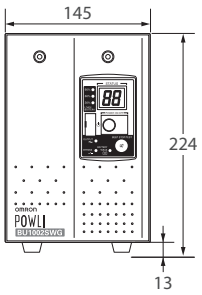
Backup time table (Time unit: minutes)

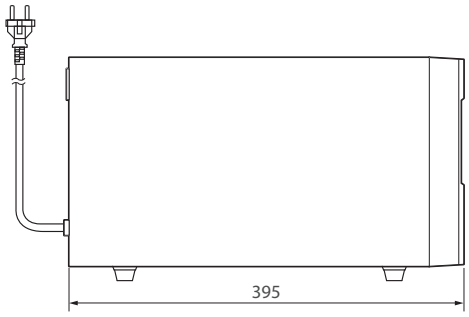
Model	Connection capacity (W)														
	20	50	100	200	300	400	600	800	1000	1200	1400	1600	1800	2000	2100
BU1002SWG	180	120	60	35	20	15	7	–	–	–	–	–	–	–	–
BU3002SWG	360	250	170	92	58	46	30	20	15	12.0	10	8	7	5.5	5

Note: The above backup times are for reference only. They may change depending on the battery life and external environment (such as temperature).

Dimensions

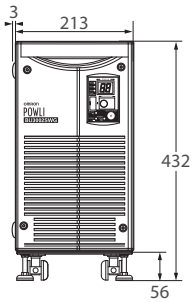
BU1002SWG

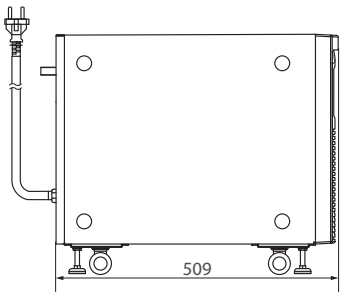




Unit: mm

BU3002SWG





Unit: mm

Multiple mounting online AC-AC type UPS, useful in a variety of applications

- Online power supply method: Continuous power supply against instantaneous voltage drop or power interruptions
- Easy LCD operation without PC & multiple mounting methods.
- Multiple connections, input/output terminal block and RS232-C, I/O for external communication, plus external remote ON/OFF signal
- Hot-swappable batteries: Ensures clean, uninterrupted power to protect equipment during battery replacement

Ordering information

Uninterruptible power supply (UPS)

Input voltage	Output voltage	Capacity	Type	Order code
200/208/220/230/240 VAC	200/208/220/230/240 VAC	2000 VA/1400 W	Rackmount*1, Multi voltage power, Low power consumption	BU2002RWLG
		3000 VA/2100 W		BU3002RWLG
		5000 VA/3500 W		BU5002RWLG

*1 Can also use the included vertical stand when positioning the unit vertically

Replacement battery pack

Rated voltage	Rated capacity	Weight	Applicable model	Order code
12 VDC	9 Ah	11 kg	BU2002RWL	BUB2002RW
		17 kg	BU3002RWL, BU5002RWL (2pcs needed)	BUB3002RW

Related products

Description	Applicable model	Order code
SNMP/Web card	BU2002RWLG, BU3002RWLG, BU5002RWLG	SC20G2
Contact I/O card		SC08G*1

*1 The standard UPS connection signal is NPN. To use a PNP connection, use the SC08G option.

Specifications

Item		BU2002RWLG	BU3002RWLG	BU5002RWLG
Operation method		Full-time inverter supply method (high efficiency)		
AC input	Rated input voltage	200/208/220/230/240 VAC		
	Startup voltage range	200 V mode: 160±2 to 288±2 VAC, 208 V mode: 167±2 to 278±2 VAC 220 V mode: 176±2 to 278±2 VAC, 230 V mode: 184±2 to 278±2 VAC 240 V mode: 192±2 to 278±2 VAC, 100 V mode: 160±2 to 288±2 VAC		
	Input voltage range	200 V mode: 170±2 to 278±2 VAC, 208 V mode: 177±2 to 278±2 VAC 220 V mode: 186±2 to 278±2 VAC, 230 V mode: 194±2 to 278±2 VAC 240 V mode: 202±2 to 278±2 VAC, 100 V mode: 170±2 to 278±2 VAC		
	Input frequency	50/60 Hz±1, 3, 5, or 14% (5% in the factory settings)		
	Maximum current (at rated voltage)	9 A	14 A	23 A
	Phase	Single-phase, two-wire (grounded)		
	Input plug	Terminal block		NEMA L6-30P / Terminal block
AC output	Output capacity (upper limit)	2000 VA/1400 W (1000 VA/700 W in 100 V mode)	3000 VA/2100 W (1500 VA/1050 W in 100 V mode)	5000 VA/3500 W (2500 VA/1750 W in 100 V mode)
	Rated current (at rated voltage)	10 A	15 A	25 A
	Switching time	Uninterrupted		
	Output voltage (commercial operation)	200 V mode: 200 VAC±2%, 208 V mode: 208 VAC±2% 220 V mode: 220 VAC±2%, 230 V mode: 230 VAC±2% 240 V mode: 240 VAC±2%, 100 V mode: 100 VAC±5%		
	Output voltage (backup operation)	200 V mode: 200 VAC±2%, 208 V mode: 208 VAC±2% 220 V mode: 220 VAC±2%, 230 V mode: 230 VAC±2% 240 V mode: 240 VAC±2%, 100 V mode: 100 VAC±5%		
	Output frequency (commercial operation)	Synchronized with input frequency		
	Output frequency (backup operation)	50/60±0.5 Hz		
	Output waveform (in commercial power mode/battery mode)	Sine wave/Sine wave		
	Phase	Single-phase, two-wire		
	Output receptacles	Terminal block		NEMA L6-30R × 2, terminal block

Item		BU2002RWLG	BU3002RWLG	BU5002RWLG
Battery	Sealed lead battery life expectancy	5 years (ultralong operating life) (ambient temperature 25°C)		
	Battery capacity (V/Ah) (× Quantity)	12 VDC/9 Ah (× 4)	12 VDC/9 Ah (× 6)	12 VDC/9 Ah (× 12)
	Charging time	8 hours		
Backup time (25°C, initial characteristics)		5 min (1400 W)	5 min (2100 W)	5 min (3500 W)
Dimensions in (W × D × H mm)		430×660×88 (2U)		430×700×132 (3U)
Weight of unit		Approx. 28 kg	Approx. 33 kg	Approx. 61 kg
Operating environment temperature/humidity		0 to 40°C/25% to 85% with no condensation		
Storage environment temperature/humidity		–15 to 50°C/10% to 90% (with battery fully charged, stored with no condensation)		
Noise regulation		VCCI Class A compliant		
Safety standard compliance		UL1778/CE/RoHS compliance		
Internal power consumption (normal*1/maximum*2)		70 W/145W	148W/265W	249 W/480W
Cooling method		Forced air cooling		
Serial communication (RS-232C) (interface)		(D-sub 9pin)		
Contact signal (interface)		(D-sub 9pin)		

*1 Rated load/rated input voltage/when fully charged
*2 Rated load/rated input voltage/when battery charge current is at maximum

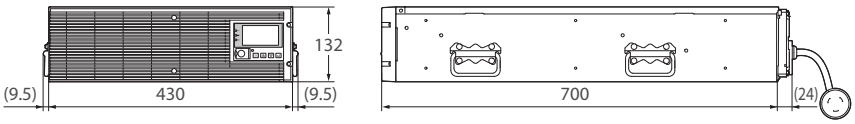
Backup time table (Time unit: minutes)

Model	Connection capacity (W)																	
	20	50	100	200	300	400	600	800	1000	1200	1400	1600	1800	2000	2100	2700	3000	3500
BU5002RWLG	660	480	320	200	140	106	68	50	39	31	25	21	18	16	15	10	8	5
BU3002RWLG	450	260	165	93	63	45	28	19	15	11	9	7.5	6	5.2	5	–	–	–
BU2002RWLG	360	190	110	60	39	27	16	12	9.5	7	5	–	–	–	–	–	–	–

Note: These backup times are for reference only. Times may vary according to battery life and external environmental conditions (temperature, etc.)

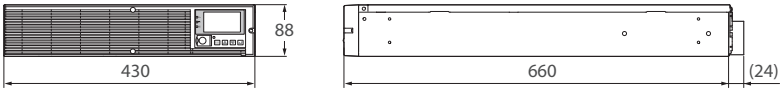
Dimensions

BU5002RWLG



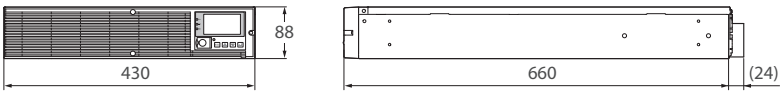
Unit: mm

BU3002RWLG



Unit: mm

BU2002RWLG



Unit: mm