

Online UPS

# SANUPS A11K-Li

Double Conversion Online UPS  
with Lithium-ion Batteries

Lineup:

| [No. of phases/wires]<br>Input/Output voltage                | Output capacity |      | Battery backup time* | I/O connector           |
|--|-----------------|------|----------------------|-------------------------|
|  | [kVA]           | [kW] |                      |                         |
| [Single-phase 2-wire]<br><b>100 V model</b><br>100/110/120 V | 1.5             | 1.2  | 19 min               | Outlet                  |
|  | 3               | 2.4  |                      | Outlet / terminal block |

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



### Wide Operating Temperature Range

- Achieves a wide operating temperature range of -20 to +55°C. This UPS can be used with confidence even in harsh cold or hot environments.

### Space-Saving

- The heights of the 1.5 kVA and 3 kVA models are 2U (86 mm) and 4U (175 mm), respectively. They are smaller than the UPSs with lead-acid batteries, saving rack space.

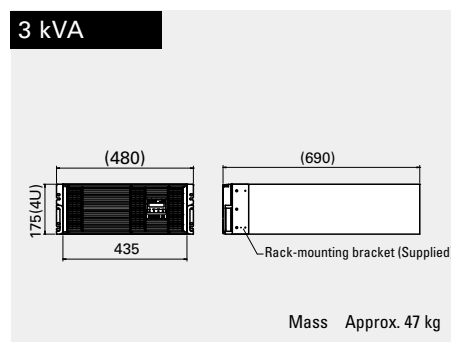
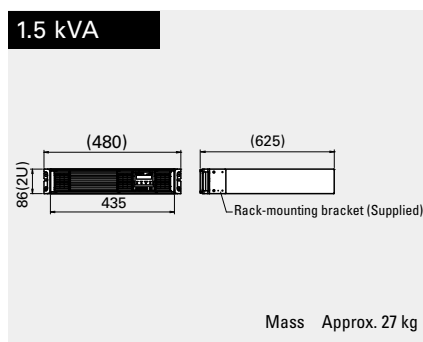
### Long Service Life

- This UPS uses lithium-ion batteries, and the expected battery life is approximately twice as long as our conventional UPS<sup>(1)</sup> that uses lead-acid batteries. It can operate for 10 years without battery replacement,<sup>(2)</sup> reducing the maintenance work and costs.

(1) Conventional UPS: A11K (with lead-acid batteries).

(2) Assuming 10 power outages per year and 30°C ambient temperature.

### Dimensions (Unit: mm)



Paint color: Black (Munsell N1.5)

## Specifications

| Model no.   | S-A11KL152A0019SSN00  |  | S-A11KL302A0019SSN00  | S-A11KL302A0019SST00                      |
|---|---|--|---|---|
| Rated output capacity (apparent power / active power)                   | 1.5 kVA / 1.2 kW  |  | 3 kVA / 2.4 kW  |   |
| Technology  | Topology  | Grid synchronous double conversion online  |   |   |
|   | Rectifier   | High-power factor converter  |   |   |
|   | Cooling method  | Forced air cooling   |   |   |
|   | Inverter  | High-frequency PWM   |   |   |
| AC input  | No. of phases/wires   | Single-phase 2-wire <sup>(1)</sup>   |   |   |
|   | Rated voltage   | 100/110/120 V (User-selectable. Factory setting: 100 V)  |   |   |
|   | Voltage range   | At load level < 70%: Within -40 to +20% of rated voltage (-40% becomes -20% for recovery voltage)<br>At load level ≥ 70%: Within ±20% of rated voltage |   |   |
|   | Rated frequency   | 50/60 Hz (auto-sensing <sup>(2)</sup> )  |   |   |
|   | Frequency range   | Within ±1, 3, 5, or 7% of rated frequency (same as output frequency regulation)  |   |   |
|   | Required capacity <sup>(3)</sup>  | 1.5 kVA  | 3.0 kVA   |   |
|   | Input power factor  | 0.95 or greater  | 0.97 or greater   |   |
| AC output   | No. of phases/wires   | Single-phase 2-wire  |   |   |
|   | Rated voltage   | 100/110/120 V (Same as AC input)   |   |   |
|   | Rated current   | 15 A   | 30 A  |   |
|   | Voltage regulation  | Within ±2% of rated voltage (at rated output)  |   |   |
|   | Rated frequency   | 50/60 Hz (Same as the input rated frequency)   |   |   |
|   | Frequency regulation  | During grid operation  | Within ±1, 3, 5, or 7% of the rated frequency (User-selectable. Factory setting: ±3%) |   |
|   |   | During battery operation   | Within ±0.5% of rated frequency   |   |
|   | Output waveform   | Pure sine wave   |   |   |
|   | Voltage harmonic distortion   | At linear load   | 3% or less (At rated output)  |   |
|   |   | At rectifier load  | 7% or less (At rated output)  |   |
|   | Load power factor   | Rated  | 0.8 lagging (Variation range: 0.7 lagging to 1.0)                                     |   |
|   |   |  |   |   |
|   | 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  | Automatic transfer to bypass (With automatic retransfer function)                               |  |   |   |
| Overload capability   | Inverter  | 105% (for 200 ms)  |   |   |
|   | Bypass  | 200% (for 30 s), 800% (for 2 cycles)   |   |   |
| Battery   | Type  | Lithium-ion battery  |   |   |
|   | Battery backup time <sup>(4)</sup>  | Initial value  | 19 min  |   |
|   |   | After 10 years <sup>(5)</sup>  | 16 min  |   |
|   | Battery capacity [Ah-cell]  | 180  | 360   |   |
|   | Battery power consumption [Wh]  | 666  | 1332  |   |
| Battery self-test   | Settings possible (Factory setting: "disabled")   |  |   |   |
| Input plug  | NEMA 5-15P  |  | NEMA L5-30P   | M5 terminal                               |
| Output outlet   | NEMA 5-15R × 6  |  | NEMA L5-30R × 1<br>NEMA 5-15R × 2 (15 A each)   | M5 terminal<br>NEMA 5-15R × 2 (15 A each) |
| Interface   | PC port   | RS-232C  |   |   |
|   | Remote port   | Remote ON/OFF switch (can control up to 5 UPS units in Linked Operation using a dedicated cable.)  |   |   |
|   | Communication terminal  | Failure/Outage   |   |   |
|   | Dry contact   | Optional dry contact interface card is required  |   |   |
|   | Network support   | Optional LAN interface card is required  |   |   |
| Acoustic noise  | During normal operation   | 45 dB  | 46 dB   |   |
|   | During battery operation or when the ambient temperature exceeds 40°C                           | 51 dB  | 55 dB   |   |
| Heat dissipation (At rated operation, after battery charging completed) | 127 W   |  | 254 W   |   |
| Input leakage current   | 3 mA  |  | 3.5 mA  |   |
| Operating environment   | Ambient temperature: -20 to +55°C; <sup>(6)</sup> relative humidity: 10 to 90% (non-condensing) |  |   |   |
| Storage environment <sup>(7)</sup>                                      | Ambient temperature: -15 to +60°C; relative humidity: 10 to 90% (non-condensing)                |  |   |   |
| EMC standard  | VCCI 32-1 ClassA  |  |   |   |
| <b>Separate options</b>   |   |  |   |   |
| Rack support rail <sup>(8)</sup>  | RM030 (2U)  |  | RM028 (4U)  |   |
| Floor mounting brackets <sup>(9)</sup>                                  | FMA11KA00   |  | Included  |   |
| Caster <sup>(10)</sup>  | CBA11KA01   |  | CBA11KA02   |   |
| Air filter kit <sup>(11)</sup>  | FLO08-3   |  | FLO10-3   |   |

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

(2) The inverter synchronizes operation with AC input and allows uninterrupted transfer through a bypass circuit provided that the AC input frequency is within a range of the rated frequency ±3% (1, 3, 5, or 7% selectable) and the AC input voltage is within the rated voltage ±20% (if the load level is less than 70%: between -40% and +20%).

(3) Max. capacity during battery recovery charging

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

(5) Assuming 10 power outages per year

(6) Battery charging will stop when battery temperature exceeds 55°C.

(7) To extend battery life, avoid use or storage for extended periods of time in environments exceeding +30°C.

When storing UPSs without operating for a long period, battery recharging once every six months is required.

(8) Used for mounting a UPS unit on a EIA/JIS standard 19-inch rack.

(9) Used to secure a UPS to the floor.

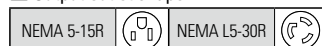
(10) Used to move a vertically-installed UPS.

(11) Use an air filter at an ambient temperature of 40°C or less.

### Input plug shape



### Output outlet shape



**SANYO DENKI CO., LTD.**

3-33-1 Minami-Otsuka, Toshima-ku, Tokyo 170-8451, Japan TEL: +81 3 5927 1020

<https://www.sanyodenki.com>

The names of companies and/or their products specified in this catalog are the trade names, and/or trademarks and/or registered trademarks of such respective companies.

SANUPS is a trademark of SANYO DENKI CO., LTD.

Specifications are subject to change without notice.

CATALOG No. P1046B002 '19.11