

## S4K4U-C 6 kVA and S4K6U-C 10 kVA Industrial On-Line UPS

The new SolahD S4K4U6000C and the S4K6U10KC Industrial UPS Series are the first true On-Line industrial UPS that provide higher output power factor, higher efficiency, flexible output voltage, an integrated maintenance bypass switch and internal batteries all in slim 4U (7.0") and 6U (10.5") enclosures respectively.

The S4K4UC and S4K6UC features true On-Line (double conversion) topology providing the ultimate in protection against a wide range of potential power problems. The S4K4UC design of two 3 kVA, 120V inverters allow flexible output voltage to meet mixed load voltage requirements. The UPS automatically configures the output voltage to match the input configuration without requiring tap selections. Self diagnostics simplify maintenance and troubleshooting. The standard maintenance bypass switch provides an additional level of protection.

The S4K4UC and S4K6UC also feature a wide input voltage window to support the critical load without having to transfer to the battery. This extends system availability when back-up is truly needed.

### Applications

- Industrial Computers
- Robotics and Process Controls
- Industrial Automation Systems
- Network Servers
- Enterprise Telecommunication Systems
- Printing and Publishing Machinery
- Pharmaceutical and Medical Diagnosis Equipment
- Industrial and Commercial Machinery
- Micro-processor Controlled Equipment
- Mission Critical Devices

### Features

- True double conversion topology
- Higher power factor of 0.80 (6kVA) and 0.90 (10kVA)
- Both models offer 208/120V or 240/120V
- Configurable as a tower or rack mounting
- Highest density, 6 kVA in only 4U and 10 kVA in only 6U of rack space
- Easily installed in 18" to 32" deep rack using rack mount kit # SRS1832
- User replaceable, hot-swappable internal battery module
- Extended battery cabinets
- Includes both automatic and manual maintenance bypass switch



- Automatic frequency detection (60 or 50 Hz)
- Power factor correction
- Self-diagnostics simplify maintenance and troubleshooting
- Remote emergency Power Off (REPO)
- Intellislot™ USB and terminal block communication ports
- Compatible with most standby generators
- Uses an average of 35% less energy than their standard counterparts
- Provides continuous uptime for the connected equipment, with capacity and battery back-up delivered in cabinets that use 4U to 6U of rack space
- Two year limited warranty

### Certifications and Compliances

- cUL<sub>us</sub> Listed, UPS Equipment
  - UL 1778
  - CSA C22.2 No. 107.3
- IEEE/ANSI C62.41 Category A & B
- ISTA Procedure 1A
- ABS Type Approved
- RoHS Compliant
- ENERGY STAR® certified



### Related Products

- Portable MCR Power Conditioners
- Surge Protective Devices
- Active Tracking® Filters

## S4K 6 and 10 kVA Specifications

**Table 1: UPS Specifications**

Parameters	Model Number	
	S4K4U6000C	S4K6U10KC
<b>Rating</b>	4800 W/6000 VA	9000 W/10000 VA
<b>Dimensions, W x D x H, in. (mm)</b>		
<b>Unit</b>	6.80 x 26.10 x 16.90 (173.0 x 662.0 x 430.0)	10.30 x 26.50 x 16.90 (261.0 x 672.0 x 430.0)
<b>Shipping</b>	13.20 x 33.10 x 26.10 (336.0 x 842.0 x 662.0)	16.70 x 32.80 x 24.10 (424.0 x 832.0 x 612.0)
<b>Weight, lbs. (kg)</b>		
<b>Unit</b>	56.2 (25.50)	78.3 (35.50)
<b>Shipping</b>	70.5 (32.00)	92.6 (42.00)
<b>Input AC Parameters</b>		
<b>Nominal Operating Frequency</b>	50 or 60 Hz (Factory default is 60 Hz)	
<b>Factory Default Vac</b>	120/208 Vac @ 120°C	
<b>L1–L2 Factory Default Input Phase Angle</b>	120°C	
<b>Allowable Input Phase Angle</b>	120, 180, 240 degrees; auto-sensing on application of alternating current (Restrictions for L–N voltage other than 120 Vac)	
<b>Factory Default L1–N, L2–N Vac</b>	120 Vac nominal	
<b>User Configurable L1–N, L2–N Vac</b>	100/110/115/120/127 Vac (Can be modified with configuration program)	
<b>Input Frequency w/o Battery Operation</b>	40–70 Hz	
<b>Input Power Connection</b>	Hardwire terminal block 3W + G (L–L–N–G)	
<b>L1–N, L2–N Maximum Allowable Vac</b>	150 Vac	
<b>Output AC Parameters</b>		
<b>Factory Default Vac</b>	120/208 Vac @ 120°C	
<b>L1–L2 Factory Default Output Phase Angle</b>	120°C	
<b>Allowable Output Phase Angle</b>	120, 180, 240 degrees; auto-sensing on initial application of input alternating current	
<b>Factory Default L1–N, L2–N Vac</b>	120 Vac nominal	
<b>User Configurable L1–N, L2–N Vac</b>	100/110/115/120/127 Vac, ±2%	
<b>L1–N, L2–N Overload Rating</b>		
<b>105% to 130%</b>	1 minute	
<b>131% to 150%</b>	10 seconds	
<b>151% to 200%</b>	1 second	
<b>&gt;200% (impact load)</b>	At least 5 cycles	

S4K 6 and 10 kVA Specifications - continued

**Table 2: UPS Specifications**

Parameters	Model Number	
	S4K4U6000C	S4K6U10KC
<b>Bypass Protection Limits</b>		
<b>Disable Bypass Operation</b>	If input voltage exceeds $\pm 15\%$ of the nominal voltage	
<b>Re-enable Bypass Operation</b>	If input voltage returns to within $\pm 10\%$ of nominal output voltage	
<b>Disable Bypass Operation</b>	When the input frequency prevents synchronous operation	
<b>Environmental Requirements</b>		
<b>Operating Temperature</b>	0°C to +40°C; see Table 11 for operating temperature parameters	
<b>Storage Temperature</b>	-15°C to +50°C	
<b>Relative Humidity</b>	0% to 95%, non-condensing	
<b>Operating Elevation</b>	Up to 10,000 ft. [3,000 m]	
<b>Audible Noise</b>	<55 dBA @ 3.2 ft. [1 m] rear; <50 dBA @ 3.2 ft. [1 m] front & sides	
<b>Standards</b>		
<b>EMC</b>	FCC Part 15, Subpart B, Class A, FCC Class A	

**Table 3: Operating Temperature Parameters**

Ambient Temperature	Model Number	
	S4K4U6000C	S4K6U10KC
pf @ 30°C $\pm 3^\circ\text{C}$	0.8 pf	0.9 pf
pf @ 40°C $\pm 3^\circ\text{C}$	0.8 pf	0.8 pf

**Table 4: Internal Battery Specifications**

Parameters	Model Number	
	S4K144INTBATC	S4K288INTBATC
Used with UPS Models	S4K4U6000C	S4K6U10KC
<b>Dimensions, W x D x H, in. (mm)</b>		
Unit	2.80 x 19.30 x 8.10 (70.0 x 490.0 x 206.0)	5.30 x 19.70 x 8.10 (135.0 x 500.0 x 207.0)
Shipping	12.20 x 23.70 x 10.30 (310.0 x 602.0 x 262.0)	12.20 x 23.90 x 9.50 (310.0 x 607.0 x 242.0)
<b>Weight, lbs. (kg)</b>		
Unit	75.8 (34.40)	71.1 (32.30)
Shipping	81.1 (36.80)	76.4 (34.70)
<b>Battery Parameters</b>		
Type	Valve-regulated, non-spillable, flame retardant, lead acid	
Qty x V x Rating	2 x 6 x 12 V x 9.0 Ah	2 x 12 x 12 V x 9.0 Ah
Battery Mfr./Part Number	CSB type UPS12460F2	
Back-up Time	See Table 8	
Recharge Time	3 hours to 90% capacity after full discharge into 100% load	
<b>Environmental Requirements</b>		
Operating Temperature	0°C to +40°C	
Storage Temperature	-15°C to +50°C	
Relative Humidity	0% to 95%, non-condensing	
Operating Elevation	Up to 10,000 ft. [3,000 m] at +40°C without derating	

**Table 5: External Battery Cabinet Specifications**

Parameters	Model Number	
	S4K144BATC	S4K288BATC
Used with UPS Models	S4K4U6000C	S4K6U10KC
<b>Dimensions, W x D x H, in. (mm)</b>		
Unit (with bezel)	3.30 x 26.10 x 16.90 (85.0 x 662.0 x 430.0)	6.80 x 26.50 x 16.90 (173.0 x 672.0 x 430.0)
Shipping	25.80 x 34.30 x 12.30 (655.0 x 872.0 x 312.0)	13.20 x 33.10 x 24.50 (336.0 x 842.0 x 622.0)
<b>Weight, lbs. (kg)</b>		
Unit	99.9 (45.30)	29.8 (13.50)
Shipping	110.2 (50.00)	44.1 (20.00)
<b>Battery Parameters</b>		
Type	Valve-regulated, non-spillable, flame retardant, lead acid	
Qty x V x Rating	2 x 6 x 12 V x 9.0 Ah	2 x 12 x 12 V x 9.0 Ah
Battery Mfr./Part Number	CSB type UPS12460F2	
Back-up Time	See Table 8	
<b>Environmental Requirements</b>		
Operating Temperature	0°C to +40°C	
Storage Temperature	-15°C to +50°C	
Relative Humidity	0% to 95%, non-condensing	
Operating Elevation	Up to 10,000 ft. [3,000 m] at +40°C without derating	

**Table 6: Power Distribution Specifications for S4K4U6000C**

Parameters	Model Number							
	S4KPAD2-HDWRC	S4KPAD2-HDWR-MBSC *	S4KPAD2-001C	S4KPAD2-002C	S4KPAD2-003C	S4KPAD2-004C	S4KPAD2-005C	S4KPAD2-006C
<b>Dimensions, W x D x H, in. (mm)</b>								
<b>Unit</b>	5.20 x 15.50 x 3.50 (132.0 x 393.0 x 88.0)							
<b>Shipping</b>	9.50 x 20.70 x 9.10 (242.0 x 527.0 x 230.0)							
<b>Weight, lbs. (kg)</b>								
<b>Unit</b>	5.1 (2.30)	6.0 (2.70)	8.8 (4.00)	8.6 (3.90)	8.6 (3.90)	9.9 (4.50)	10.6 (4.80)	9.5 (4.30)
<b>Shipping</b>	7.3 (3.30)	8.2 (3.70)	11.0 (5.00)	10.8 (4.90)	10.8 (4.90)	12.1 (5.50)	12.8 (5.80)	11.7 (5.30)
<b>Electrical Specifications</b>								
<b>Amp Rating</b>	30 A 2-pole input breaker							
<b>Input Power Connections</b>	Hardwire terminal block 3W + G (L-L-N-G)		(1) L14-30R on a 300 mm cord					
<b>Output Power Connections</b>	Hardwire terminal block 3W + G (L-L-N-G)		(4) 5-20R (1) L14-30R (1) L6-30R	(2) 5-20R (2) L6-20R	(4) 5-20R (2) L6-30R	(4) L5-20R (2) L5-30R	(4) L5-20R (2) L6-30R	(4) L6-20R

\* Standard on S4K4U6000C units

**Table 7: Power Distribution Specifications for S4K6U10KC**

Parameters	Model Number					
	S4KPAD2-101C	S4KPAD2-102C	S4KPAD2-103C	S4KPAD2-104C	S4KPAD2-105C	S4KPAD2-106C
<b>Dimensions, W x D x H, in. (mm)</b>						
<b>Unit</b>	7.40 x 5.70 (188.0 x 145.0)					
<b>Shipping</b>	11.90 x 20.60 x 8.70 (302.0 x 522.0 x 220.0)					
<b>Weight, lbs. (kg)</b>						
<b>Unit</b>	4.4 (2.00)	6.6 (3.00)			4.4 (2.00)	6.6 (3.00)
<b>Shipping</b>	6.6 (3.00)	8.8 (4.00)			6.6 (3.00)	8.8 (4.00)
<b>Electrical Specifications</b>						
<b>Amp Rating</b>	60 A 2-pole input breaker					
<b>Input Power Connections</b>	Hardwire terminal block 3W + G (L-L-N-G) to chassis					
<b>Output Power Connections</b>	(2) L6-30 (8) 5-20R	(4) L6-20R (4) 5-20R	(4) 5-20R (4) L6-30R	(4) 5-20R (2) L6-30R (2) L6-20R	(4) 5-20R (2) L5-30R (2) L5-20R	(4) L6-20R (4) L5-20R