

## Sola S4K2U and S4K2U-5 Industrial On-Line UPS

The true on-line (double conversion) protection offered by the S4K2U Industrial UPS series eliminates a wider range of potential power problems (spikes, surges and extended overvoltage, noise and other transients, sags and extended brownouts), even difficult-to-track harmonics and dangerous frequency variations that are common with stand-by generator operation. These UPS modules are a true on-line design with a sinewave output in a slim 2U (3.5") package.

### Features

- S4K2U offered at 120V, 50/60 Hz
- S4K2U-5 offers flexible L-N output voltage (220/230/240 V, 50/60 Hz for international applications)
- Hardwire capability for permanent installation
- Small 2U height maximizes available space
- Two step battery recharge extends battery life
- PWM inverter reduces output voltage distortion
- Add on batteries for extended runtimes
- Integral sealed, non-spillable batteries for safe ground or air transportation.
- Hot swappable, user replaceable battery
- Automatic restart
- Automatic and manual battery test
- RS232 communication port easily interfaces with the PC.

The LED display indicates battery capacity, percentage of UPS load, battery operation, bypass operation and UPS fault condition. The rack-tower models are also supplied with securing flanges and rack slide mounting hardware.

Units can be easily hardwired by removing the attached line cord and receptacle plate. All units include a conduit knockout cover in the box.



- Rack-mount or Stand-alone tower mounting for 700 - 3000 VA units
- 700 - 3000 VA units are field configurable with a PC as a frequency converter (bypass will be disabled).
- Integral dynamic bypass reduces shutdowns
- Compatible with most standby generators
- Input and output noise suppression
- Two year limited warranty

**Note:** The securing flanges do not support the weight of the UPS. Rack slides or shelves are required (sold separately).

## Selection Table – S4K2U & S4K2U-5 Tower/Rack-mount Models

Capacity (VA/W)	Catalog Number	Typical Runtime (minutes)*	Input Plug/Output Receptacle	Approx. Ship Weight lbs (kg)
<b>120 VAC, 50/60 Hz Models</b>				
700/490	<b>S4K2U700</b>	17/44	5-15P / (4) 5-15R	50 (22.7)
1000/700	<b>S4K2U1000</b>	11/25	5-15P / (4) 5-15R	51 (23.1)
1500/1050	<b>S4K2U1500</b>	7/20	5-15P / (4) 5-15R	52 (23.6)
2000/1400	<b>S4K2U2000</b>	6/14	5-20P / (4)5-20R (15/20 amp type)	56 (25.4)
3000/2100	<b>S4K2U3000</b>	5/16	L5-30P / (4)5-20R (15/20 amp type), L5-30R	76 (34.5)
<b>230 VAC, 50/60 Hz International Models</b>				
1000/700	<b>S4K2U1000-5</b>	11/25	IEC 60320-10A / (4) IEC 60320/C13	51 (23.1)
2000/1400	<b>S4K2U2000-5</b>	6/14	IEC 60320-10A / (4) IEC 60320-10A	56 (25.4)
3000/2100	<b>S4K2U3000-5</b>	5/16	IEC 60320-16A / (4) IEC 60320-10A (1) IEC 60320-16A	76 (34.5)

\* Full/Half Load (in minutes).

## Sola S4K2U-5, 230 VAC, 50/60 Hz Tower/Rack-mount Models Specifications



Catalog Number	S4K2U1000-5	S4K2U2000-5	S4K2U3000-5
Capacity (VA/Watts)	1000/700	2000/1400	3000/2100
<b>Dimensions - inches (mm)</b>			
Unit (H x W x D)	17 in x 3.5 in x 21.5 in (432 mm x 89 mm x 546 mm)		17 in x 3.5 in x 24.2 in (432 mm x 89 mm x 618 mm)
Shipping (H x W x D)	23 in x 10 in x 27 in (584 mm x 254 mm x 685 mm)		
Approx. Shipping Weight - lbs (kg)	58 (26)	63 (28)	78 (35)
<b>Input AC Parameters</b>			
Voltage Range (typical)	230 VAC nominal; variable based upon output load		
100% - 90% Loading	159 VAC / 280 VAC	176 VAC / 280 VAC	
90% - 70% Loading	159 VAC / 280 VAC		
70% - 30% Loading	139 VAC / 280 VAC		
30% - 0% Loading	119 VAC / 280 VAC		
Frequency	40-70 Hz; auto sensing		
Input Connector	IEC 60320-10A		IEC 60320-16A
<b>Output AC Parameters</b>			
Output Receptacles	(4) IEC 60320/C13	(4) IEC 60320-10A	(4) IEC 60320-10A, (1) (4) IEC 60320-16A
Voltage	200/208/220/230/240 (user configurable) VAC; ±3%		
Frequency	50 Hz or 60 Hz		
Waveform	Sinewave		
Main Mode Overload	200% for 8 cycles; 130% for 10 seconds with transfer to bypass		
<b>Battery Parameters</b>			
Type	Valve-Regulated, non-spillable, lead acid		
Qty x Voltage x Rating	4 x 12V x 7.2 AH	4 x 12V x 9 AH	6 x 12V x 9 AH
Battery Mfg/Part #	China Storage Battery	Yuasa / REW 45-12 FR	
Back-up Time	See Battery Runtime Chart		
Recharge Time	5 Hours to 95% capacity after full discharge into 100% load (Internal Batteries Only)		
<b>Environmental</b>			
Operating Temperature	0°C to +40°C (+32°F to +104°F)		
Storage Temperature	-15°C to +50°C (+5°F to +122°F)		
Relative Humidity	0% to 95%, non-condensing		
Operating Elevation	Up to 10,000 ft. (3000 m) at 104°C (40°C) without derating		
Storage Elevation	15.000m (50,000 ft.) maximum		
Audible Noise	<50 dBA, at 1 metre from the rear <45 dBA, at 1 metre from the front or sides		
<b>Agency</b>			
Safety	CE compliance mark for both Low Voltage and EMC Directives		
RFI/EMI	EN 50091-2, Class B		
Surge Immunity	EN 61000 4-2, 4-3, 4-4, 4-5		
Transportation	ISTA Procedure 1A		

## External Battery Cabinets Specifications

Catalog Number	S4K2U48BAT			S4K2U96BAT	
Used with UPS Model	S4K2U700 S4K2U1500	S4K2U1000 S4K2U1000-5	S4K2U2000 S4K2U2000-5	S4K2U3000 S4K2U3000-5	
<b>Dimensions - inches (mm)</b>					
Unit (H x W x D)	17 in x 3.5 in x 21.5 in (432 x 89 x 546)			17 in x 3.5 in x 24.2 in (432 x 89 x 618)	
Shipping (H x W x D)	23 in x 10 in x 27 in (584 x 254 x 685)			23 in x 10 in x 27 in (584 x 254 x 685)	
Approx. Shipping Weight - lbs (kg)	71.1 (32.3)			102.5 (46.5)	
<b>Battery Parameters</b>					
Type	Valve-regulated, non-spillable, lead acid				
Battery Qty x Voltage x Rating	(2 x 4) 12 V x 7.2 AH			(2 x 6) 12 V x 9 AH	
Battery Mfg / Part Number	China Storage Battery			Yuasa / REW 45-12 FR	
Back-up Time	See Battery Runtime Chart				
Recharge Time	5 Hours to 95% capacity after full discharge into 100% load				
<b>Environmental</b>					
Operating Temperature	+32°F to +104°F (0°C to +40°C)				
Storage Temperature	+5°F to +122°F (-15°C to +50°C)				
Relative Humidity	0% to 95%, non-condensing				
Operating Elevation	Up to 10,000 ft. (3000 m) at 104°C (40°C) without derating				
Storage Elevation	15.000 m (50,000 ft.) maximum				
<b>Agency</b>					
Safety	UL 1778, c-UL listed (Suitable for computer room applications) EN50091-1-1, CE compliance mark, for both Low Voltage and EMC Directives				
RFI/EMI	FCC part 15, Subpart B, Class B EN50091-2				
Transportation	ISTA Procedure 1A				

## S4K2U and S4K2U-5 Battery Run Time<sup>1</sup> Charts

	Load %	700VA	1000VA	1500VA	2000VA	3000VA
<b>Internal Battery (minutes)</b>	10%	248	191	144	56	91
	20%	115	87	63	33	46
	30%	79	48	38	26	30
	40%	68	34	28	19	21
	50%	44	26	20	14	16
	60%	35	19	15	12	11
	70%	29	16	12	10	9
	80%	24	13	10	8	8
	90%	20	12	8	7	7
	100%	17	11	7	6	5
<b>Internal Battery +1 External Battery Cabinet (minutes)</b>	10%	992	764	576	328	364
	20%	460	348	212	159	184
	30%	316	192	152	88	120
	40%	232	136	112	67	84
	50%	176	100	80	52	64
	60%	140	76	60	36	44
	70%	116	64	48	30	36
	80%	96	52	40	24	32
	90%	80	48	32	21	28
	100%	68	44	28	18	20
<b>Internal Battery +2 External Battery Cabinets (minutes)</b>	10%	1984	1528	1152	392	728
	20%	920	696	424	231	368
	30%	632	384	304	182	240
	40%	464	272	224	133	168
	50%	352	200	160	98	128
	60%	280	152	120	84	88
	70%	232	128	96	70	72
	80%	192	104	80	56	64
	90%	160	96	64	49	56
	100%	136	88	56	42	40

	Load %	700VA	1000VA	1500VA	2000VA	3000VA
<b>Internal Battery + 3 External Battery Cabinets</b>	10%	2976	2292	1728	560	1092
	20%	1380	1044	636	330	552
	30%	948	576	456	260	360
	40%	696	408	336	190	252
	50%	528	300	240	140	192
	60%	420	228	180	120	132
	70%	348	192	144	100	108
	80%	288	156	120	80	96
	90%	240	144	96	70	84
	100%	204	132	84	60	60
<b>Internal Battery + 4 External Battery Cabinets</b>	10%	3968	3056	2304	840	1456
	20%	1840	1392	848	495	736
	30%	1264	768	608	390	480
	40%	928	544	448	285	336
	50%	704	400	320	210	256
	60%	560	304	240	180	176
	70%	464	256	192	150	144
	80%	384	208	160	120	128
	90%	320	192	128	105	112
	100%	272	176	112	90	80