



# Outdoor UPS Systems

with SSG-RP Industrial Ultra-wide Temp UPS, 1 to 3kVA



## Key Advantages:

- **Ready-to-install**  
Falcon's SSG-RP pre-configured NEMA 3R-rated UPS systems provide the ideal solution for outdoor and indoor use. The UPS enclosures are available in various sizes.
- **-30°C to 65°C temperature range**  
The SSG UPS is **agency-certified** (UL, cUL, CE) to operate reliably in ultra-wide temperature environments. All 120V models are also UL 508 listed.
- **High-reliability: true on-line, industrial UPS**  
Tested and designed with robust components and materials, the SSG-RP assures reliable operation and a long service life in very demanding environments. It is a true on-line industrial UPS.
- **Extreme temperature batteries**  
The batteries used inside the UPS were specifically selected due to their wide operational range of -40°C to 80°C. They have a 10-year life at 25°C.
- **Extended battery banks & other options**  
The battery banks are easily expandable to provide minutes to hours of extra battery runtime. Other options include: environmental protection, remote UPS management, environment sensors, relay cards – and much more.
- **Falcon – recognized for quality and reliability**  
Falcon Electric is a recognized authority in industrial UPS solutions. Our technical expertise assures you find the right solution – the first time.

# Outdoor UPS Systems with SSG-RP Industrial UPS 1kVA to 3kVA

Model	SSG-RP Outdoor UPS System Model Number Determined by Configuration Ordered				
UPS Nominal VA	1000	1500	2000	2500	3000
<b>UPS Electrical Input</b>					
Nominal AC Voltage	-1 Models: 120Vac, -2 Models 208, 220, 230, 240Vac				
AC Voltage Range	-1 Models: 80Vac to 138Vac, -2 Models 160 to 276Vac				
Frequency	50/60 Hz $\pm$ 5% (Auto Tracking)				
Power Factor Correction	>0.98 (at full load)				
Surge Suppression	IEEE/ANSI C62.41				
Efficiency (Typ.)	88%				
<b>UPS Electrical Output</b>					
Watts	700	1050	1400	1750	2100
AC Voltage (User Programmable)	-1 Models: 100, 110, 115 or 120Vac (sinewave) -2 Models: 208, 220, 230 or 240Vac (sinewave)				
Frequency	50/60 Hz (Auto Tracking)				
Frequency Stability	$\pm$ 0.3% (Battery Mode), $\pm$ 5% Synchronized to the input frequency in utility mode				
Voltage Regulation	$\pm$ 2%				
Step Load Change	$\pm$ 7% for 100% load variation, recovery in 5ms				
Harmonic Distortion	< 3% Linear Load, < 5% Non-Linear Load				
Overload	110% for 40 seconds, 125% for 18 seconds, 150% immediate				
Crest Ratio	3:1				
<b>UPS Battery</b>					
DC Bus Voltage	48Vdc x2	96Vdc			
Battery Pack Type	User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module				
Battery Type (Std. Battery Module)	8 each, ultra-wide temperature range (-40°C to 80°C), Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 5Ah				
Battery Runtimes (SSGH-B VRLA) Full/Half Load in Minutes	21 / 46	12.5 / 29	7.2 / 20.5	5 / 15.9	3.5 / 12.5
Recharge Time	6 Hours to 90%				
<b>UPS Transfer Time</b>					
Line Fails/Recovers	Zero				
UPS to Bypass or Reverse	< 4ms				
After Overload	Auto Transfer to UPS				
<b>System Electrical Connections</b>					
Input	Hardwire Terminal Block				
Output	Hardwire Terminal Block				
<b>System Environmental</b>					
Temperature	Operational Storage	-30°C to 65°C (-22°F to 149°F) (SSG3KRP-1 or -2, -30°C to 60°C) -30°C to 65°C (-22°F to 149°F) When operated in temperatures above 25°C, the battery service life will be reduced.			
Humidity	10% to 95% Non – Condensing				
Altitude	10,000 Feet (3,000 meters) without derating				
Cooling	Low Velocity Forced Air Fan (UPS Only)				
Audible Noise (@ 1 Meter)	<50dBA (UPS only)				
Conformal Coating on UPS Circuit Boards	Optional upon customer request at an added cost				
<b>UPS Controls &amp; Indicators</b>					
LED Display	Line, Inverter, Battery, Bypass, Battery %, Load %, Alarm, Charger, Overload				
Audible Alarms	DC Mode, Low Battery, Over/Under Voltage, Over/Under Frequency, High Temp., Overload, Fault Alarm				
Load Segment Control	Two programmable load segments, one continuous load segment (Except on -2 models)				
Remote Emergency Power Off	(Standard)	Meets NFPA 70, NEC 645-11 (REPO hardwire connections located on the UPS rear panel)			
Communications	USB Port, RS-232C Serial Port, Optional SNMP/HTTP Agent Board (UPS Bundled UPSilon Software)				
<b>System Enclosure Mechanical</b>					
Sample Dimensions inches (mm) HxWxD Note: <b>Various sizes available-contact factory</b>	41.0 x 24.0 x 12.0 (1041 x 610 x 305) (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)				
Sample Weight lb. (kg)	279 (127)	304 (138)			
<b>Agency Approvals</b>	-1 Models: UL 1778, UL 508, cUL, FCC Class B; -2 Models: CE, UL 1778, cUL NEMA 3R Enclosure - UL, cUL Listed				

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Extended Battery Bank Options - VRLA					
<b>Extended Battery Bank Model Numbers</b>	<b>SSGH-B</b>		<b>SSGH-B1</b>		<b>SSGH-B2</b>
Battery Type	10-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 5Ah				
Temperature	Operational	-30°C to 65°C (-22°F to 149°F) When operated in temperatures above 25°C, the battery service life will be reduced.			
	Storage	-30°C to 65°C (-22°F to 149°F) Batteries stored at 50°C will require monthly recharging and have a reduced service life.			
Internal 2A Charger	No		Yes		
Charger Input Voltage & Current	None		120Vac, 2.5A		208Vac to 240Vac, 2.5A
Dimensions H x W x D	inches (mm)	(2U) 3.5 x 19 x 20.2 (88.9 x 482.6 x 513.1)			
Weight	lb. (kg)	Extended Battery Module = 58.2 (26.4)		Extended Battery Module = 60.2 (27.3)	
<b>For mounting dimensions, contact factory.</b>					
Extended Battery Runtimes - VRLA					
<b>(Note: Stated battery runtimes are identical for SSGH-B, SSGH-B1, SSGH-B2 battery banks and are stated by UPS models below)</b>					
<b>UPS Model Numbers</b>	<b>SSG1KRP-1 SSG1KRP-2</b>	<b>SSG1.5KRP-1 SSG1.5KRP-2</b>	<b>SSG2KRP-1 SSG2KRP-2</b>	<b>SSG2.5KRP-1 SSG2.5KRP-2</b>	<b>SSG3KRP-1 SSG3KRP-2</b>
<b>Battery Runtimes by Model</b>	700W / 350W	1050W / 525W	1400W / 700W	1750W / 875W	2100W / 1050W
Full/Half Load in Minutes					
UPS as Shipped	21 / 46	12.5 / 29	7.2 / 20.5	5 / 15.9	3.5 / 12.5
One Extended Battery Bank	50 / 110	32 / 68	22 / 50	16.4 / 39.3	12.5 / 32
Two Extended Battery Banks	84 / 170	50.5 / 115	38 / 84	28.8 / 64.2	22.3 / 50.5
Three Extended Battery Banks	118 / 230	74 / 155	52 / 116	40.2 / 91	32 / 74
Four Extended Battery Banks	150 / 290	98 / 200	69 / 150	53.2 / 118.5	42 / 98
<b>Note: Battery runtimes may vary depending on temperature, battery age and condition.</b>					
<b>To extend battery runtime for many hours, 40Ah battery bank/charger option is available (5U height). See datasheet.</b>					
External Maintenance Bypass Switch Option*					
<b>Bypass Switch Model Numbers</b>	<b>MB2K-1, MB2K-2</b>		<b>MB3K-1, MB3K-2</b>		
Model Selection	MB2K-1 used with SSG1KRP-1 to SSG2KRP-1 MB2K-2 used with SSG1KRP-2 to SSG2KRP-2		MB3K-1 used with SSG2.5KRP-1 MB3K-2 used with SSG2.5KRP-2	MB3K-1 used with SSG3KRP-1 MB3K-2 used with SSG3KRP-2	
Nominal Input/Output Voltage	-1, 120Vac and -2, 208Vac to 240Vac				
VA Rating	2000		3000	3000	
Switch Type	Make-Before-Break				
Utility Input and Load Output Connection	Hardwire				
UPS Input Connection	Pre-Configured				
UPS Output Connection	Pre-Configured				
Dimensions H x W x D	inches (mm)	9.9 x 12.6 x 5.3 (251.5 x 320 x 134.6)			
Weight	lb. (kg)	11 lbs. (5 kg)			
<b>Agency Approvals</b>	UL 1778, cUL				
<b>*Installation of Maintenance Bypass Switch requires the installation of one UA88246 contact interface card inside the UPS communications card slot.</b>					

