



SSG[®] Series Industrial-Grade UPS Plus[®] 1.5kVA-3kVA, 120 & 220Vac Rack/Tower



Industrial-Grade Protection for a Wide Range of Applications

Protecting industrial equipment and other demanding environments against power disturbances can be a challenge unless you use the SSG Industrial-Grade On-line UPS. The SSG Series is designed to handle harsh power environments. It is easily configured as a rackmount or tower UPS.

On-line UPS with High Temperature Operation up to 55°C

Due to its rugged design, the SSG Series has received a UL Listing for temperatures up to 55°C (131°F). Moreover, unlike Off-line and Line-interactive designs, Falcon's On-line UPS acts as an electronic firewall between the incoming "dirty" power source and your sensitive equipment. The double-conversion On-line SSG Series regenerates continuous, clean, tightly regulated power regardless of the incoming AC power quality.

10-Year Rated Batteries

Batteries are the life blood of all UPSs, but are costly to replace. All SSG Series models are equipped with batteries having a 10-year life expectancy in a typical 70°F to 80°F environment. This is double the average UPS battery life. Even when the UPS is installed in a 122°F (50°C) location, the projected battery life is 4 years. This is over four times the typical UPS battery life for the same temperature environment.

When battery replacement is required simply slide out the user-replaceable, hot-swappable battery pack and replace with a new one. Replacement is accomplished while the UPS continues to power the critical load and without having to remove the UPS from the equipment rack.

Optional Frequency Converter Capability

Thanks to Falcon's flexible design platform, the SSG Series can be configured as a frequency converter for worldwide power applications. Accepting a 50/60Hz input and providing a fixed 60Hz or 50Hz output, the SSG Series supplies a tightly regulated output of $\pm 2\%$ and excellent extended brownout protection.

RS-232, USB & SNMP/HTTP UPS Management

With the supplied UPSilon[®] software, all models support unattended shutdown, UPS management, data logging and a power diagnostic tool. The software supports all Windows[®] platforms including Version 7 and Server Version 2008 R2, Novell NetWare[®] 5 & 6, LINUX and FreeBSD. UPSilon for UNIX is available at an additional cost and supports most popular UNIX platform and OS versions.

Falcon's optional SNMP/HTTP agent board provides IPv4 and IPv6 addressable remote management and monitoring over any 10/100 Ethernet LAN, WAN or the Internet. The agent board installs via a communications expansion slot located on the back of every SSG Series model. Client software is supplied that supports the shutdown of multiple workstations and servers via the network.

Remote Emergency Power Off (REPO)

The SSG Series is equipped with an NFPA-70, NEC 645-11 compliant REPO interface assuring easy integration. Remote output receptacle control is an option to REPO, allowing the load segment outlets to be remotely controlled using a wire connected, remote switch.

Typical Rear Panel Configuration



Advanced Features:

- * True Double-Conversion On-line Sinewave Design
- * UL Listed for -20°C to +55°C Operation
- * Hot-Swappable, 10-Year Rated Batteries
- * LCD Display with Advanced Monitoring for Easy UPS Management
- * Load Segment Control
- * Remote Emergency Power Off (Standard) or Remote Output Receptacle Control
- * Input Power Factor Correction
- * Wide Input Voltage Window
- * Precision Output Voltage Regulation
- * Extended Brownout, Plus Surge & Transient Protection
- * Optional Extended Battery Banks & Chargers
- * UPSilon[®] UPS Monitoring & Management Software
- * RS-232C, USB & Optional SNMP/HTTP Agent

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SSG® Series Industrial-Grade UPS PLUS®

1.5kVA - 3kVA

Model Number	SSG1.5KRM-1 SSG1.5KRM-2	SSG2.2KRM-1 SSG2.2KRM-2	SSG3KRM-1 SSG3KRM-2
Nominal VA	1500	2200	3000
Electrical Input			
Nominal AC Voltage	-1 Models 120Vac -2 Models 208-240Vac		
AC Voltage Range	-1 Models 80-138Vac -2 Models 160-276Vac		
Frequency	50/60 Hz ± 5% (Auto Tracking)		
Power Factor Correction	> 0.97 (at full load)		
Surge Suppression	IEEE/ANSI C62.41		
Efficiency (Typ.)	> 87%		
Electrical Output			
Watts	1050	1540	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 or user programmable fixed 50 or 60Hz modes)		
Frequency Stability	± 0.3% (Battery Mode), ±5% Synchronized to the input frequency in utility mode		
Voltage Regulation	± 2%		
Step Load Change	± 7% for 100% load variation, recovery in 5ms		
Harmonic Distortion	< 3% Linear Load, < 5% Non-Linear Load		
Overload	150% for 10 seconds, 110% for 20 seconds, 105% for 50 seconds		
Crest Ratio	3:1		
Battery			
DC Bus Voltage (nominal)	48Vdc	96Vdc	
Battery Pack Type	User-Replaceable, Hot-Swappable (Batteries are replaceable through the front panel) (Battery packs are replaceable through the front panel without removing the UPS, battery bank or EBM from the equipment rack)		
Battery Type (With standard VRLA Type) SSGLi-4 Ten-Year Lithium-Ion Battery Option	10-Year Rated, VRLA Batteries, 12Vdc, 7AH (4) 10-Year Rated, Lithium-Ion 12Vdc, 4.6AH	10-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7AH N/A	
Back Up Time (With standard VRLA Type) SSGLi-4 Ten-Year Lithium-Ion Battery Option SSGLi-8 2U External Lithium-Ion Bank	5 minutes / 16 minutes 9.5 minutes / 20 minutes 28.5 minutes / 60 minutes	8 minutes / 20 minutes N/A N/A	6 minutes / 18 minutes N/A N/A
Recharge Time	8 Hours to 90%		
Transfer Time			
Line Fails/Recovers	Zero		
UPS to Bypass or Reverse	< 4ms		
After Overload	Auto Transfer to UPS		
With Frequency Converter Options	Bypass Disabled		
Electrical Connections			
Input	-1 Models = 6' Cord with 5-15P Plug -2 Models = 6' Cord with Schuko Plug	-1 Models = 6' Cord with 5-20P Plug -2 Models = 6' Cord with Schuko Plug	-1 Models = 6' Cord with L5-30P Plug -2 Models = 6' Cord with Schuko Plug
Output	(8) 5-15R (4) IEC320	(4) 5-15R & (1) L5-20R (4) IEC320	(4) 5-15R & (1) L5-30R (4) IEC320
Environmental			
Temperature	Operational Storage	-20°C - 55°C (-4°F to 131°F) (Extended operation in temperatures above 25°C will shorten the battery life) -20°C - 55°C (-4°F to 131°F) (Extended storage in temperatures above 25°C will shorten the battery life)	
Humidity	10% to 95% Non - Condensing		
Altitude	10,000 Feet (3000 meters) without derating		
Cooling	Low Velocity Forced Air Fans		
Heat Dissipation (BTU/Hour)	535	784	1071
Audible Noise (@ 1 Meter)	<50dBA		
Controls & Indicators			
LCD Display	MIMIC Graphical Display, Input/Output Voltage, Frequency & Load, Alarm, Programmable settings & UPS state icons		
Audible Alarms	DC Mode, Low Battery, Over/Under Voltage, Over/Under Frequency, High Temp., Over Load, Fault Alarm		
Load Segment Control	Two programmable load segments, one continuous load segment		
Remote Emergency Power Off (or)	(Standard) Meets NFPA 70, NEC 645-11 (REPO connections located on the UPS rear panel)		
Remote Output Receptacle Control	(Optional) UPS Load Segment Controlled Output Receptacles can be turned off and on using a remote isolated switch contact.		
Communications	USB Port, RS-232C Serial Port, Optional SNMP/HTTP Agent Board (UPS Bundled UPSilon 2000 Software)		
Mechanical			
Dimensions inches (mm)	(2U) 3.5 x 19 x 21.3 (88 x 482.6 x 540)	(2U) 3.5 x 19 x 21.3 (88 x 482.6 x 540)	
SSGH-B Battery Module	(None - Batteries inside UPS)	(2U) 3.5 x 19 x 21.3 (88 x 482.6 x 540)	
Weight lb. (kg)	UPS With Internal VRLA batteries = 55 (24.5) With Internal Lithium batteries = 39.5 (17.9) External 2U Lithium Battery Bank = 39.15	(2U) UPS Module = 32 (14.5) (2U) External Battery Module = 70.6 (32) N/A N/A	(2U) UPS Module = 32 (14.5) (2U) External Battery Module = 70.6 (32) N/A N/A
Agency Approvals	-1 Models = UL 1778, CUL, FCC Class B, -2 Models = CE, UL 1778, CUL		

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1-12-2012



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