



Pre-Configured NEMA 3R UPS Systems

SSG-RP Industrial Ultra-wide Temp 1kVA to 3kVA



Ready to Install NEMA 3R UPS Solution for Indoor/Outdoor Use

Simply hang, hardwire and it is ready to go. Falcon's SSG-RP pre-configured NEMA 3R-rated UPS systems provide the ideal ultra-wide temperature range UPS solution for indoor and outdoor use. NEMA 4-rated enclosures are also offered. Both locking and non-locking enclosure systems are available. Simply specify at the time of order.

Extreme Temperature Range Protection -30°C to 65°C (-22°F to 149°F)

The SSG-RP UPS is UL 1778, UL 508, cUL Listed and CE approved to operate from -30°C to 65°C (-22°F to 149°F). This ultra-wide temperature, double conversion, on-line UPS family is unique in the industry. It has been specifically designed to withstand extreme temperature environments that would destroy other UPS products.

Designed for Long Service Life and High Reliability

Falcon has carefully selected a high-grade, powder coated NEMA 3R enclosure. We next integrated it with our ultra-wide temperature SSG-RP UPS models to provide turnkey systems that operate reliably in extreme temperature environments of -30°C to 65°C (-22°F to 149°F). The battery modules packaged inside the system contain batteries that were specifically selected for their wide operational temperature range of -40°C to 80°C (-40°F to 176°F). This is in excess of the maximum 65°C UPS specification. The batteries are rated to provide a 10-year service life when installed in a 25°C (77°F) environment.

The SSG-RP UPS offers vital UPS and power information through its feature-rich, easy-to-use LED display.

Optional Frequency Converter

The SSG is factory-configurable for use as a 50Hz or 60Hz frequency converter, making it the ideal choice for worldwide power applications.



Advanced Features:

- * True Double-Conversion On-line Sinewave Design
- * UL Listed for -30°C to 65°C Operation
- * Precision Output Voltage Regulation
- * Ultra-wide Temperature User-Replaceable, Battery Pack
- * Hours of Battery Backup
- * UL, cUL Listed NEMA 3R and NEMA 4 Rated Enclosures (all sizes) with Cooling Fan
- * Add PLCs, VFDs, and other Devices
- * Dry Contact Relay Card Options
- * Hardwire Input and Output
- * Remote Emergency Power Off (Standard)
- * RS-232C, USB & Optional SNMP/HTTP Agent

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SSG-RP Pre-Configured NEMA 3R UPS Systems 1kVA to 3kVA

Model	SSG-RP NEMA UPS Model Number Determined by Configuration Ordered				
UPS Nominal VA	1000	1500	2000	2500	3000
UPS Electrical Input					
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%				
UPS Electrical Output					
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				
UPS Battery					
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				
Backup Time (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%				
UPS Transfer Time					
Line Fails/Recovers	Zero				
UPS to Bypass or Reverse	< 4ms				
After Overload	Auto Transfer to UPS				
With Frequency Converter Option	Bypass Disabled				
System Electrical Connections					
Input	Hardwire Terminal Block				
Output	Hardwire Terminal Block				
System Environmental					
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) At temperatures above 25°C battery 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				
UPS Controls & Indicators					
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)				
System Enclosure Mechanical					
Sample Dimensions inches (mm) HxWxD (PP70399 NEMA 3R Enclosure) Note: All sizes available-contact factory	36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6) (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)				
Sample Weight lb. (kg) (PP70399 NEMA 3R Enclosure)	249 (113)	252 (114.3)			
Agency Approvals	UPS - UL 1778, UL 508, cUL, CE, FCC Class B NEMA 3R Enclosure - UL, cUL Listed				

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Extended VRLA Battery Bank Options					
Extended Battery Bank Model Numbers	SSGH-B		SSGH-B1		SSGH-B2
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 about a 1 year 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)	
For mounting dimensions, contact factory.					
Extended VRLA Battery Runtimes					
(Note: Stated backup times are identical for SSGH-B, SSGH-B1, SSGH-B2 battery banks and are stated by UPS models below)					
UPS Model Numbers	SSG1KRP-1 SSG1KRP-2	SSG1.5KRP-1 SSG1.5KRP-2	SSG2KRP-1 SSG2KRP-2	SSG2.5KRP-1 SSG2.5KRP-2	SSG3KRP-1 SSG3KRP-2
Backup Time by Model	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
Note: Backup time may vary depending on temperature, battery age and condition. 5U height, 40Ah battery bank/charger option supports long backup requirements.					
Communications Options					
Internal COM Board Model Numbers	UA88376-SSG	UA88376-SSG-HW	SNMP-SG-4		SNMP-MEGA-INT
Type	Dry Relay Signal Interface		Ultra Secure SNMP/HTTP		Secure SNMP/HTTP
COM Interface	DB-9F	Hardwire Terminal Block	10/100 Ethernet (RJ45)		
Communications Specifications	Dry contact for: Utility Loss, Low Battery, Summary Alarm & On Bypass, Remote Shutdown while on Battery		Internet-based remote UPS monitoring and management via SNMP/HTTP		
External COM Board Model Numbers			SNMP-SG-5		SNMP-MEGA-EXT
Type			Ultra Secure SNMP/HTTP		Secure SNMP/HTTP
COM Interface			10/100 Ethernet (RJ45)		
Communications Specifications			Internet-based remote UPS monitoring and management via SNMP/HTTP		
External Maintenance Bypass Switch Option*					
Bypass Switch Model Numbers	MB2K-1, MB2K-2		MB3K-1, MB3K-2		
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	Hardwire				
UPS Output Connection	Hardwire				
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)			
Agency Approvals	UPS - UL 1778, UL 508, cUL, CE, FCC Class B NEMA 3R Enclosure - UL, cUL Listed				
*Installation of Maintenance Bypass Switch requires the installation of one UA88376-SSG contact interface card inside the UPS communications card slot.					



Quick Facts: Falcon's SSG-RP Industrial Ultra-wide Temperature UPS Family

- 1. Industrial On-line UPS**– Ruggedly designed for harsh environments. All plastics, batteries and electronics are rated to operate in extreme temperatures.
- 2. Wide-temperature Range**– **Agency Certified:** UL 1778, UL 508, cUL and CE approved to operate from -30°C to 65°C (-22°F to 149°F).
Many UPSs are rated from 0°C to 40°C, or are not agency certified at the ultra wide-temperature range listed in their specs; they offer no guarantee to operate reliably in harsh environments.
- 3. NEMA-Rated Enclosures and Many Other Options**– **Ready-to-install** indoor/outdoor UPS systems – one of the only UPSs with all agency certifications. Other options: conformal coating of internal boards, powder coating of enclosures and more.
- 4. Batteries that Reduce Servicing, Downtime and Costs**– 10-year rated batteries with a 1-year life at 50°C; other UPSs typically require frequent battery replacements.

Extended Battery Runtimes– Add minutes, hours or days of backup time.
- 5. True On-line UPS Design**– Many UPSs are office-grade, including line-interactive UPS designs that are mislabeled as “industrial on-line.” These are not reliable to use in industrial settings. Falcon has a 25-year field-proven track record as a leader in on-line UPS design.

