



SSG Industrial Wide-temperature UPS

1.5kVA to 3kVA, 120/230Vac Rackmount



SSG Industrial UPS Advantages:

- **-20°C to 55°C temperature range**
The SSG UPS is **agency-certified** (UL, cUL, CE) to operate reliably in demanding environments. All 120V models are also UL 508 listed.
- **Long-life UPS: true on-line, industrial**
Tested and designed with robust components and materials, the SSG assures reliable operation and a long service life in stressful environments. It is a true on-line industrial UPS.
- **12-year rated batteries cut service costs**
The long-life batteries cut frequent battery replacements and maintenance costs. They have a 12-year life at 25°C and **4 years** at 50°C.
- **Extended battery banks**
The battery banks are easily expandable to provide minutes to hours of extra battery runtime.
- **Available options / Advanced communications**
NEMA 3R-rated enclosures, environmental protection, remote UPS management, environment sensors, relay cards – and much more.
- **Falcon is 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.

SSG Industrial Wide-temp UPS

Rackmount 1.5kVA to 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, 220, 230, 240Vac			
AC Voltage Range	-1 Models: 80-138Vac, -2 Models: 160-276Vac			
Frequency	50/60 Hz \pm 5% (Auto Tracking)			
Power Factor Correction	>0.97 (at full load)			
Surge Suppression	IEEE/ANSI C62.41			
Efficiency (Typ.)	88%			
Electrical Output				
Watts	1050	1540	2100	
AC Voltage (User Programmable)	-1 Models: 100, 110, 115 or 120Vac (sine wave) -2 Models: 208, 220, 230 or 240Vac (sine wave)			
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			
Battery				
DC Bus Voltage (nominal)	48Vdc	96Vdc		
Battery Pack Type	User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)			
Battery Type	12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7Ah			
Battery Runtimes Full/Half Load in Minutes	6 / 18	10 / 27	6 / 18.9	
Recharge Time	8 Hours to 90%			
Transfer Time				
Line Fails/Recovers	Zero			
UPS to Bypass or Reverse	< 4ms			
After Overload	Auto Transfer to UPS			
Electrical Connections - For hardwired models, contact factory.				
Input	-1 -2	6' Cord with 5-15P Plug 6' Cord with Schuko Plug	6' Cord with 5-20P Plug 6' Cord with Schuko Plug	6' Cord with L5-30P Plug 6' Cord with Schuko Plug
Output	-1 -2	(8) 5-15R (4) IEC320 C13 Outlets	(4) 5-15R & (1) L5-20R (4) IEC320 C13 Outlets	(4) 5-15R & (1) L5-30R (4) IEC320 C13 Outlets
Environmental				
Temperature	Operational Storage	-20°C to 55°C (-4°F to 131°F) When operated in temperatures above 25°C, the battery service life will be reduced. -20°C to 55°C (-4°F to 131°F) Batteries stored at 50°C will require monthly recharging and have a reduced service life.		
Humidity		10% to 95% Non - Condensing		
Altitude		10,000 Feet (3,000 meters) without derating		
Cooling		Low Velocity Forced Air Fan		
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., Overload, Fault Alarm			
Load Segment Control	Two programmable load segments, one continuous load segment (Except on -2 models)			
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 Software)			
Mechanical - For mounting dimensions, contact factory.				
UPS Dimensions H x W x D	inches (mm)	(2U) 3.5 x 19 x 22.5 (88.9 x 482.6 x 571.5) (None - Batteries inside UPS)	(2U) 3.5 x 19 x 21.9 (88.9 x 482.6 x 556.3)	
SSGR Battery Module		(2U) 3.5 x 19 x 21.3 (88.9 x 482.6 x 541)		
Weight	lb. (kg)	(2U) UPS Module = 32 (14.5)	(2U) UPS Module = 32 (14.5)	
12-Year VRLA Batteries		UPS with Internal batteries = 55 (24.9)	(2U) External Battery Module = 70.6 (32)	(2U) External Battery Module = 70.6 (32)
Agency Approvals	-1 Models: UL 1778, UL 508, cUL, FCC Class B; -2 Models: CE, UL 1778, cUL			

SSG UPS Options			
Extended Battery Bank Options - VRLA			
Extended Battery Bank Model Numbers	SSGR	SSGR-1	SSGR-2
Battery Type	12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7Ah		
Temperature	Operational	-20°C to 55°C (-4°F to 131°F) When operated in temperatures above 25°C, the battery service life will be reduced.	
	Storage	-20°C to 55°C (-4°F to 131°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 21.3 (88.9 x 482.6 x 541)	
Weight	lb. (kg)	Extended Battery Module = 70.6 (32)	Extended Battery Module = 72.6 (32.9)
For mounting dimensions, contact factory.			
Extended Battery Runtimes - VRLA			
(Note: Stated battery runtimes are identical for SSGR, SSGR-1, SSGR-2 battery banks and are stated by UPS models below)			
UPS Model Numbers	SSG1.5KRM-1 SSG1.5KRM-2	SSG2.2KRM-1 SSG2.2KRM-2	SSG3KRM-1 SSG3KRM-2
Battery Runtimes by Model	1050W / 525W	1540W / 770W	2100W / 1050W
Full/Half Load in Minutes			
UPS as Shipped	6 / 18	10 / 27	6 / 18.9
One Extended Battery Bank	23.7 / 60.5	20.6 / 52	13 / 34.4
Two Extended Battery Banks	48.6 / 118	36.3 / 90	23.8 / 60.6
Three Extended Battery Banks	76.9 / 178	54 / 128.3	35.5 / 88.9
Four Extended Battery Banks	106 / 241	73 / 170	48.5 / 118.1
Note: Battery runtimes may vary depending on temperature, battery age and condition.			
To extend battery runtime for many hours, 40Ah battery bank/charger option is available (5U height). See datasheet.			
Lithium Iron Phosphate (LiFePO₄) Battery option also available. See datasheet.			
External Maintenance Bypass Switch Option*			
Bypass Switch Model Numbers	MB2K-1, MB2K-2	MB3K-1, MB3K-2	
Model Selection	MB2K-1 used with SSG1.5KRM-1 MB2K-2 used with SSG1.5KRM-2	MB3K-1 used with SSG2.2KRM-1 MB3K-2 used with SSG2.2KRM-2	MB3K-1 used with SSG3KRM-1 MB3K-2 used with SSG3KRM-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	-1 L5-20R -2 L6-20R	L5-30R L6-20R	
UPS Output Connection	-1 6' Line Cord with L5-20P -2 6' Line Cord with L6-20P	6' Line Cord with L5-30P 6' Line Cord with L6-20P	
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	UL 1778, cUL		
*Note: Installation of Maintenance Bypass Switch requires the installation of one UA88246 contact interface card inside the UPS communications card slot.			

Typical SSG Rear Panel Configuration



SSG UPS with Hot-Swappable Battery Pack

