



Lithium Iron Phosphate Battery – LiFePO₄

with SSG Industrial Wide-temp UPS, 1.5 to 3kVA



LiFePO₄ Battery Advantages:

- **Very lightweight – 44% less**
Each Falcon battery pack weighs 44% less than a lead-acid equivalent. This is ideal for applications with a weight/footprint requirement.
- **3 to 4 times longer runtimes**
The high-energy battery capacity means *fewer battery packs* and longer runtimes.
- **Long service life: 10-years plus**
With 4 times more charge/discharge cycles, you cut battery replacements and service costs.
- **Wide-temperature range**
Tolerance of wide temperatures makes the LiFePO₄ battery ideal for demanding environments.
- **Advanced safety**
Lithium Iron cathode material has no thermal runaway issues – unlike the previous generation of lithium-ion batteries.
- **Eco-friendly**
Falcon's LiFePO₄ battery is safe for the environment. It has no caustic materials or dangerous odors.

LiFePO₄ Battery with SSG 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 ± 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	± 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	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	10-Year Plus Rated, 51.2V, 11.1Ah (568.3Wh) Battery Pack			
Battery Runtimes Full/Half/Quarter Load in Minutes	20 / 42 / 96	29 / 61 / 139	20 / 42 / 96	
Recharge Time	11 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) -20°C to 55°C (-4°F to 131°F)		
Humidity		10% to 95% Non – Condensing		
Altitude		10,000 Feet (3,000 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., 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)	UPS with Internal batteries = 41 (18.6)	(2U) UPS Module = 32 (14.5) (2U) External Battery Module = 49 (22.2)	

SSG UPS Options				
Extended Battery Bank Options – LiFePO ₄				
Extended Battery Bank Model Numbers	SSGR	SSGR-1	SSGR-2	
Battery Type	10-Year Plus Rated, 51.2V, 11.1Ah (568.3Wh) Battery Pack			
Temperature	Operational: -20°C to 55°C (-4°F to 131°F) Storage: -20°C to 55°C (-4°F to 131°F)			
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 = 41 (18.6)		Extended Battery Module = 49 (22.2)	
For mounting dimensions, contact factory.				
Extended Battery Runtimes – LiFePO ₄				
(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 Full/Half/Quarter Load in Minutes	1050W / 525W / 262.5W	1540W / 770W / 385W	2100W / 1050W / 525W	
UPS as Shipped	20 / 42 / 96	29 / 61 / 139	20 / 42 / 96	
One Extended Battery Bank	60 / 126 / 288	58 / 122 / 278	40 / 84 / 192	
Two Extended Battery Banks	100 / 210 / 480	N/A	N/A	
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
COM Interface			10/100 Ethernet (RJ45)	
Communications Specifications			Internet-based remote UPS monitoring and management via SNMP/HTTP	

Typical SSG UPS Rear Panel Configuration



SSG UPS with Hot-Swappable Battery Pack

