

Lithium Iron Phosphate Battery – LiFePO₄

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



Falcon's LiFePO₄ battery offers the latest advancements in technology. Each LiFePO₄ pack weighs 44% less than a lead-acid battery – with 3 to 4 times longer runtimes and a 10-year service life.

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**
Falcon's LiFePO₄ battery can continually operate at -20° to 55°C without any performance degradation.
- **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 for SSG UPS

1.5 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		
Backup Time	20 / 42 / 96	29 / 61 / 139	20 / 42 / 96
Full/Half/Quarter Load in Minutes			
Recharge Time	11 Hours to 90%		
Transfer Time			
Line Fails/Recovers	Zero		
UPS to Bypass or Reverse	< 4ms		
After Overload	Auto Transfer to UPS		
With Frequency Converter Option	Bypass Disabled		
Electrical Connections - For hardwired models, contact factory.			
Input	-1 6' Cord with 5-15P Plug -2 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 (8) 5-15R -2 (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
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 LiFePO ₄ Battery Bank Options			
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 LiFePO ₄ Battery Runtimes			
(Note: Stated backup times 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
Backup Time by Model	1050W / 525W / 262.5W	1540W / 770W / 385W	2100W / 1050W / 525W
Full/Half/Quarter Load in Minutes			
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	
Type	Dry Relay Signal Interface		Ultra 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			
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



Awards for Falcon Electric's SSG UPS with LiFePO₄ Battery



Trusted for Over **30** Years



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