

# Pre-Configured NEMA 3R UPS Systems SSG Industrial Wide-temp 1.5kVA 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 pre-configured NEMA 3R-rated UPS systems provide the ideal 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.

#### Harsh Temperature Range Protection -20°C to 55°C (-4°F to 131°F)

The SSG UPS is UL 1778, UL 508, cUL Listed and CE approved to operate from -20°C to 55°C (-4°F to 131°F). This wide-temperature, double conversion, on-line UPS family is unique in the industry. It has been specifically designed to withstand harsh 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 wide-temperature SSG UPS models to provide turnkey systems that operate reliably in harsh temperature environments of -20°C to 55°C (-4°F to 131°F). The battery modules packaged inside the system contain batteries that were specifically selected for their wide operational temperature range. The batteries are rated to provide a 12-year service life when installed in a 25°C (77°F) environment. When installed in a 50°C (122°F) location, the projected battery life is 4 years. This is over four times the average UPS battery life.

The SSG UPS offers instant access to vital UPS and power information through its feature-rich, easy-to-use LCD MIMIC graphic 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 -20°C to 55°C Operation
- \* Precision Output Voltage Regulation
- \* High Temperature User-Replaceable, Hot-Swappable, Battery Pack
- \* Hours of Battery Backup
- \* UL, cUL Listed NEMA 3R and 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 Pre-Configured NEMA 3R UPS Systems**

### 1.5kVA to 3kVA

Control         2 Models 160/km to 2780 km           Prover Factor Correcton         > 0.907 (at hill lada)           Stringe Suppression         :EEEArchange)           Efficiency (Typ.)         98%, 1000 (at hill lada)           Witte Steerntal Output         98%, 1000 (at hill lada)           Watts         1050 (at hill lada)           Vittage Electrical Output         98%, 1000 (at hill lada)           Vittage Control         2.8000 (at hill lada)           Vittage Regulation         2.8000 (at hill lada)           Frequency         9800 (at hill lada)           Frequency Stability         4.03% (tattery Model, e.3%, Rychannizad to the input frequency in utility mode           Vittage Regulation         4.2%.           Step Load Change         4.7% (or 100% foad variation, recovery in 5ms           Step Load Change         4.7% (or 100% foad variation, recovery in 5ms           Outerbad         110% for 40 aeconds, 129% for 18 seconds, 150% immediate           Corel Ratio         3.1           UBS Battery David         8.18           UBS Battery Work (SR RVRIA)         8.18           Statting Pack Type         0.127           Battery Type         10.27           Battery Type         8.18           UBS battery Coreverter Option         10.27 <th>Model</th> <th colspan="5">SSG NEMA UPS Model Number Determined by Configuration Ordered</th>	Model	SSG NEMA UPS Model Number Determined by Configuration Ordered				
Normia AC Voltage	UPS Nominal VA	1500	2200	3000		
characterization         .2. Models 208, 202, 202, 202, 202, 202, 202, 202,	UPS Electrical Input					
Control         2 Models 160/km to 2780 km           Prover Factor Correcton         > 0.907 (at hill lada)           Stringe Suppression         :EEEArchange)           Efficiency (Typ.)         98%, 1000 (at hill lada)           Witte Steerntal Output         98%, 1000 (at hill lada)           Watts         1050 (at hill lada)           Vittage Electrical Output         98%, 1000 (at hill lada)           Vittage Control         2.8000 (at hill lada)           Vittage Regulation         2.8000 (at hill lada)           Frequency         9800 (at hill lada)           Frequency Stability         4.03% (tattery Model, e.3%, Rychannizad to the input frequency in utility mode           Vittage Regulation         4.2%.           Step Load Change         4.7% (or 100% foad variation, recovery in 5ms           Step Load Change         4.7% (or 100% foad variation, recovery in 5ms           Outerbad         110% for 40 aeconds, 129% for 18 seconds, 150% immediate           Corel Ratio         3.1           UBS Battery David         8.18           UBS Battery Work (SR RVRIA)         8.18           Statting Pack Type         0.127           Battery Type         10.27           Battery Type         8.18           UBS battery Coreverter Option         10.27 <td>Nominal AC Voltage</td> <td colspan="5"></td>	Nominal AC Voltage					
Prover Factor Correction         -9.07 (g.f. Mu Inad)           Endemony (Typ.)         89%           UPS Electrical Oup of         89%           Watts         1000         1.140         2100           AC Valladge         (User Programmable)         2.100         2.100           AC Valladge         (User Programmable)         2.00         2.00         2.00           AC Valladge         (User Programmable)         2.00         2.00         2.00           AC Valladge         (User Programmable)         2.00         2.00         2.00           Vallage Regulation         -2.00         2.00         2.00         2.00         2.00           Vallage Regulation         -2.00         2.00	AC Voltage Range					
Surge Surgerseion         IEEE/ANSI 02.41           Electioning (Typ.)         85%           UPS Electrical Output         1640           Vests         1060           A Vanage         (User Programmable)	Frequency		50/60 Hz ± 5% (Auto Tracking)			
Endeancy (typ.)  Endean	Power Factor Correction		>0.97 (at full load)			
UPS Electrical Output UPS Electrical Output UPS Electrical Output UPS Electrical Output 1050 1150 1540 1540 154 1050 1540 154 2100 2100 2100 2100 2100 2100 2100 210	Surge Suppression		IEEE/ANSI C62.41			
Watts         1000         11400         2100           AC Witage (User Programmable)         14 Modes = 200 or 240 Valc (sine wave)         2	Efficiency (Typ.)		88%			
AC Voltage       (User Programmabile)       -1 Models = 100, 110, 115 or 120/ac (sine wave)         Frequency       50/00 HC (Auto Tracking)         Frequency       50/00 HC (Auto Tracking)         Frequency       2.8 2002 302 004 Valves (sine wave)         Step Load Change       ± 7.% for 100% valves (sine wave)         Step Load Change       ± 7.% for 100% valves (sine wave)         Step Load Change       ± 7.% for 100% valves (sine wave)         Creditad       100% for 40 seconds, 155% for 18 seconds, 150% immediate         Creditad       100% for 40 seconds, 155% for 18 seconds, 150% immediate         Creditad       3.1         UPS Battery       0.50 (site National Seconds, 150% immediate         Creditad       10.1 (Site Seconds, 150% immediate         Creditad       10.0 (Site National Seconds, 150% immediate         Creditad       10.0 (Site Seconds, 150% immediate         Creditad       10.2 (Site Seconds, 150% immediate         Creditad       10.0 (Site Seconds, 150% immediate         For Interminal Seconds       12 (Year Seconds, 150% isstep Seconds)         Fullehalter	UPS Electrical Output					
-2 Models 208, 20.20 or 24/0xe (sime wwe)           Frequency         5000 Hz (Auko Transking)           Frequency         22%           Stap Laad Change         27% 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 <b>UPS Batrey</b> 0000 kg (Auko Seconds, 25% for 18 seconds, 150% immediate           DC Bus Voltage         48Vdc         98Vdc           Battery Type         (Std. Battery Module)         12.Year Rated, Maintennoer-Free, Sealed VRLA Batteries, 12/26, 7AH           Backup Time         6 / 18.0         10 / 27         6 / 18.9           Battery Type         (Std. Battery Module)         6 / 18.9         10 / 27         6 / 18.9           Battery Type         Std. Battery Module         6 / 18.9         10 / 27         6 / 18.9           Battery Type         Std. Battery Module         6 / 18.9         12 / Years 0 g 50% (12/27) Operation           UPS Transfer Time         24 / 28 / 28 / 28 / 28 / 28 / 28 / 28 /	Watts					
Froquency Stability         ± 0.3% (Battery Mode), ± 5% Synchronized to the input frequency in utility mode           Voltage Regulation         ± 2%           Voltage Regulation         ± 2%           Step Load Change         ± 7% for 100% load variation, recovery in 5ms           Harmonic Distortion         < 3% Unear Load, < 5% Non-Linear Load	AC Voltage (User Programmable)		Models = 208, 220, 230 or 240Vac (sine wa			
Voltage Regulation       ± 2%         Step Load Change       ± 7% for 100% load variation, recovery in 5ms         Harmonic Distortion       < 3% Linear Load, < 5% Non-Linear Load	Frequency		( e,			
Step Load         É 7% for 100% load variation, recovery in 5ms           Harmonic Distortion         < 3% Linear Load, < 5% Non-Linear Load	Frequency Stability	± 0.3% (Battery M	ode), ± 5% Synchronized to the input freque	ency in utility mode		
Harmonic Distortion         < 3% Linear Load, < 5% Non-Linear Load	Voltage Regulation					
Overload         110% for 40 seconds, 125% for 18 seconds, 150% immediate           Crest Ratio         3.1           UPS Battery         06 Vdc           DC Bus Voltage         48Vdc         96Vdc           Battery Yaek Type         User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)           Battery Type         (Std. Battery Module)         12. Year Rated. Maintenance. Free, Sealed VRLA Batteris, 12/Vdc, 7AH           Backup Time         (Wh SSGR VRLA)         6 / 18         10 / 27         6 / 18.9           Rated Battery Life vc. Temperature         4 Hoars (6 20%)         6 / 18.9         6 / 18.9           Rated Sattery Life vc. Temperature         2 Year (2 2 2 %C (77F) Operation         4 Years (6 20%)         0 / 2 × 7 × 7 × 7 × 7 × 7 × 7 × 7 × 7 × 7 ×	Step Load Change	±	7% for 100% load variation, recovery in 5m	S		
Crest Ratio       3:1         UPS Battry       06 Bus Voltage       48Vdc       96Vdc         Battery Pack Type       User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)         Battery Type       (Std. Battery Module)       12/Year Rated, Maintenance-Free, Sealed VPLA Batteries, 12Vdc, 7AH         Backup Time       0 / 27       6 / 18.9         Full-Half Load in Minutes       8 Hours to 90%         Rated Battery Life vc. Temperature       12 Years @ 25°C (77°F) Operation         VBPS Transfer Time       2 Years @ 25°C (122°F) Operation         UPS To Strasso Reverse       2 ero         UPS to Strasso Reverse       4 mag         After Overload       Auto Transfer to UPS         With Frequency Converter Option       Bypass Disabled         System Electrical Connections       9         Input       Hardwire Terminal Block         Output       Hardwire Terminal Block         System Electrical Connections       -20°C to 55°C (4F° to 131°F) At temperatures above 25°C battery life will be reduced         Storage       -20°C to 55°C (4F° to 131°F) At temperatures above 25°C battery life will be reduced         Colupt       10.000 Feat (3.000 meters) without derating         Cooling       Low Velocky Forced Air Fan (UPS Only)         Autitide Noise	Harmonic Distortion		< 3% Linear Load, < 5% Non-Linear Load			
UPS Battery         48Vdc         96Vdc           DC Bus Voltage         48Vdc         96Vdc           Battery Pack Type         User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)           Battery Type         (Std. Battery Module)         12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12/Vdc, 7AH           Backup Time         6 / 18         10 / 27         6 / 18.9           Recharge Time         8 Hours to 90%         Retard Battery Life vo. Temperature         12 Years (2 SC) (77F) Operation           VBS Tonafer Time         12 Years (2 SC) (77F) Operation         4 Years (2 SC) (77F) Operation         12 Years (2 SC) (77F) Operation           UPS Tonafer Time         2 Years (2 SC) (77F) Operation         4 Years (2 SC) (77F) Operation         12 Years (2 SC) (77F) Operation           UPS Tonafer Time         2 Years (2 SC) (77F) Operation         4 Years (2 SC) (77F) Operation         12 Years (2 SC) (77F) Operation           UPS Tonafer Time         2 Years (2 SC) (77F) Operation         4 Years (2 SC) (77F) Operation         12 Years (2 SC) (77F) Operation           UPS Tonafer Connections         Byses Discription (2 SC) (2 Years Tonafer to UPS         12 Years (2 SC) (77F) Operation           Input         Hardwire Terminal Block         Output         12 Years (2 SC) (2 Years (2 SC) Cattery Ife will be reduced           Storage         -20°C	Overload	110% for	40 seconds, 125% for 18 seconds, 150% ir	nmediate		
DC Bus Voltage         48Vdc         96Vdc           Battery Pack Type         User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)           Battery Type         (Std. Battery Module)         12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12/Vdc, 7AH           Backup Time         (With SSGR VRLA)         6 / 18         10 / 27         6 / 18.9           Full-Hall Load in Minutes         6 / 18         10 / 27         6 / 18.9           Recharge Time         8 Hours to 90%         8           Rated Battery Life vc. Temperature         12 Years @ 25°C (72°F) Operation         4 Years @ 50°C (122°F) Operation           VPS to Explass or Reverse         < 4 ans	Crest Ratio		3:1			
Battery Pack         User-Replaceable, Hot-Swappable Pack Separate Enclosure from UPS Module (Internal Pack for 1.5kVA)           Battery Type         (Sit Battery Module)         12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7AH           Backup Time         (With SSGR VRLA)         6 / 18         10 / 27         6 / 18.9           Recharge Time         8 Hours to 90%         8         8         6         7         6         7         8         9           Recharge Time         8 Hours to 90%         8         8         6         7         6         7         8         9         7         6         7         8         9         7         7         6         7         8         9         7         7         6         7         8         7         8         7         8         7         8         7         8         7         8         7 <t< td=""><td>UPS Battery</td><td></td><td></td><td></td></t<>	UPS Battery					
Battery Type         (Std. Battery Module)         12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7AH           Backup Time         (With SSGR VRLA)         6 / 18         10 / 27         6 / 18.9           Backup Time         8 Hours to 90%         8 Hours to 90%         6 / 18.9           Rated Battery Life vc. Temperature         12 Years @ 25°C (77°F) Operation         4 / Years @ 50°C (122°F) Operation           UPS to Spass or Reverse         Zero         Content of the Part Secovers         2 / Years @ 50°C (122°F) Operation           UPS to Spass or Reverse         Anto Transfer to UPS         Anto Transfer to UPS         Anto Transfer to UPS           With Frequency Converter Option         Bypass Disabled         System Electrical Connections         Imput           Input         Hardwire Terminal Block         Output         Hardwire Terminal Block           Output         Hardwire Terminal Block         20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Storage         -20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced         20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Coling         Low Velocity Forced Air Fan (UPS Only)         Aduto 4 (0.000 Feet (3.000 meters) without derating           Coling         Low Velocity Forced Air Fan (UPS Only)         Aduto A ste nodeus </td <td>DC Bus Voltage</td> <td>48Vdc</td> <td>96\</td> <td>/dc</td>	DC Bus Voltage	48Vdc	96\	/dc		
Battery Type         (Std. Battery Module)         12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7AH           Backup Time         (With SSGR VRLA)         6 / 18         10 / 27         6 / 18.9           Backup Time         8 Hours to 90%         8 Hours to 90%         6 / 18.9           Rated Battery Life vc. Temperature         12 Years @ 25°C (77°F) Operation         4 / Years @ 50°C (122°F) Operation           UPS to Spass or Reverse         Zero         Content of the Part Secovers         2 / Years @ 50°C (122°F) Operation           UPS to Spass or Reverse         Anto Transfer to UPS         Anto Transfer to UPS         Anto Transfer to UPS           With Frequency Converter Option         Bypass Disabled         System Electrical Connections         Imput           Input         Hardwire Terminal Block         Output         Hardwire Terminal Block           Output         Hardwire Terminal Block         20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Storage         -20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced         20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Coling         Low Velocity Forced Air Fan (UPS Only)         Aduto 4 (0.000 Feet (3.000 meters) without derating           Coling         Low Velocity Forced Air Fan (UPS Only)         Aduto A ste nodeus </td <td>Battery Pack Type</td> <td colspan="5"></td>	Battery Pack Type					
Full/Fail         0 / 16         0 / 72         0 / 16.9           Recharge Time         8 Hours to 90%         8           Reted Battery Life vc. Temperature         12 Years @ 25°C (77°F) Operation         4 Years @ 25°C (77°F) Operation           UPS Transfer Time         2ero         4 Years @ 25°C (77°F) Operation           Line Fails/Recovers         Zero         4 Years @ 25°C (77°F) Operation           Mer Overload         Auto Transfer to UPS         Arms After Overload           After Overload         Auto Transfer to UPS         Method Years           System Electrical Connections         Bypass Disabled         System Electrical Connections           Input         Hardwire Terminal Block         Output           System Electrical Connections         -20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           System Electrical Connections         -20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Humidity         10 %00 Feet (3.000 meters) without derating           Cooling         Low Velocity Forced Air Fan (UPS Only)           Autible Noise         (@ 1 Meter)         <50dBA (UPS only)			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
Rated Battery Life vc. Temperature       12 Years @ 25% (77%) Operation 4 Years @ 50% (122%) Operation         UPS transfer Time Line Fails/Recovers       Zero         UPS to Bypass or Reverse	Backup Time (With SSGR VRLA) Full/Half Load in Minutes	6 / 18	10 / 27	6 / 18.9		
4 Years @ 50°C (122°F) Operation           UPS Transfer Time           Line Fails/Recovers         Zero           UPS to Sypass or Reverse         < 4 rms	Recharge Time	8 Hours to 90%				
Line Fails/Recovers         Zero           UPS to Bypass or Reverse         < 4ms	Rated Battery Life vc. Temperature					
UPS to Bypass or Reverse       < 4ms						
After Overload       Auto Transfer to UPS         With Frequency Converter Option       Bypass Disabled         System Electrical Connections       Bypass Disabled         Input       Hardwire Terminal Block         Output       Hardwire Terminal Block         System Environmental       -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced         Temperature       Operational Storage       -20°C to 55°C (-4°F to 131°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)         Conformal Coating on UPS Circuit Boards       Optional upon customer request at an added cost         UPS Controls & Indicators       DC Mode, Low Battery, Over/Under 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       (Standard)       Meets NFPA 70, NEC 645-11 (REPO hardwire connections located on the UPS rear panel)         Communications       USB Port, RS-232C Serial Port, Optio		Zero				
With Frequency Converter Option         Bypass Disabled           System Electrical Connections         Input         Hardwire Terminal Block           Output         Hardwire Terminal Block         Output           System Environmental         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Humidity         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Humidity         00% to 55% Charts         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Attitude         10,000 Feet (3,000 meters) without derating           Cooling         Low Velocity Forced Air Fan (UPS Only)           Audible Noise         (@ 1 Meter)           Cooling on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UE Cooling audite Alarms           LCD Display         MIMIC Graphical Display, Input/Output Voltage, Frequency, Load, Alarm, Programmable settings & UPS state icons           Audibe Alarms         DC Mode, Low Battery, Over/Under Yoltage, Over/Under Frequency, High Temp, Overload, Fault Alarm           Load Segment Control         Two programmable load segments, one continuous load segment (Except on -2 models)		••••••				
System Electrical Connections         Hardwire Terminal Block           Input         Hardwire Terminal Block           Output         Hardwire Terminal Block           System Environmental         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Temperature         Operational Storage         -20°C to 55°C (-4°F to 131°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)						
Input       Hardwire Terminal Block         Output       Hardwire Terminal Block         System Environmental       -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced         Temperature       Operational Storage       -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced         Humidity       10% to 95% Non - Condensing         Attitude       10,000 Feet (3,000 meters) without derating         Cooling       Low Velocity Forced Air Fan (UPS Only)         Audible Noise       (@ 1 Meter)         Conformal Coating on UPS Circuit Boards       Optional upon customer request at an added cost         UPS Controls & Indicators       UCD Display         Audible Alarms       DC Mode, Low Battery, Over/Under 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       (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       36.0 x 25.0 x 34.0 (914.4 x 635 x 63.6)         Sample			Bypass Disabled			
Output         Hardwire Terminal Block           System Environmental         Hardwire Terminal Block           Temperature         Operational Storage         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Humidity         10% to 95% Non – Condensing           Humidity         10% to 95% Non – Condensing           Attitude         10% to 95% Non – Condensing           Attitude         10,000 Feet (3,000 meters) without derating           Cooling         Low Velocity Forced Air Fan (UPS Only)           Audible Noise         (@ 1 Meter)           Conformal Coating on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         DC Mode, Low Battery, Over/Under 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         (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         36.0 x 25.0 x 34.0 (914.4 x 635 x 8	,		Hardwire Terminal Block			
System Environmental         -20°C to 55°C (-4°F to 131°F) At temperatures above 25°C battery life will be reduced           Temperature         Operational Storage         -20°C to 55°C (-4°F to 131°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)           Conformal Coating on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UC 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         (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         36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6) (PP70339 NEMA 3R Enclosure)           Sample Weight         Ib. (kg)         204 (92.5)         262 (118.8)						
Temperature         Operational Storage         -20°C to 55°C (-4°F to 131°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)           Conformal Coating on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UED Display           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         (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         36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6) (PP70399 NEMA 3R Enclosure)           Note: All sizes available-contact factory         S04 (92.5)         262 (118.8)	· · · · · · · · · · · · · · · · · · ·		Hardwire Terminal Diock			
Storage         -20°C to 55°C (4°F to 131°F) At temperatures above 25°C battery life will be reduced           Humidity         10% to 95% Non – Condensing           Attitude         10,000 Feet (3,000 meters) without derating           Cooling         Low Velocity Forced Air Fan (UPS Only)           Audible Noise         (@ 1 Meter)           Conformal Coating on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UPS 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         (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         36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)           (PP70399 NEMA 3R Enclosure)         (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)           Sample Weight (b. (kg)         204 (92.5)         262 (118.8)	5					
Altitude       10,000 Feet (3,000 meters) without derating         Cooling       Low Velocity Forced Air Fan (UPS Only)         Audible Noise       (@ 1 Meter)         Conformal Coating on UPS Circuit Boards       Optional upon customer request at an added cost         UPS Controls & Indicators       USE 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       (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       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)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)						
Cooling         Low Velocity Forced Air Fan (UPS Only)           Audible Noise         (@ 1 Meter)           Conformal Coating on UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UPS Circuit Boards         Optional upon customer request at an added cost           UPS Controls & Indicators         UPS 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         (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         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)           Note: All sizes available-contact factory         Bo. (kg)         204 (92.5)         262 (118.8)	Humidity	10% to 95% Non – Condensing				
Audible Noise       (@ 1 Meter)         Conformal Coating on UPS Circuit Boards       Optional upon customer request at an added cost         UPS Controls & Indicators       UPS 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       (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       36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)         (PP70399 NEMA 3R Enclosure)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)	Altitude	10,000 Feet (3,000 meters) without derating				
Conformal Coating on UPS Circuit Boards       Optional upon customer request at an added cost         UPS 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       (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       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)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)	Cooling	Low Velocity Forced Air Fan (UPS Only)				
UPS 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       (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       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)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)         (PP70399 NEMA 3R Enclosure)       204 (92.5)       262 (118.8)	Audible Noise (@ 1 Meter)	<50dBA (UPS only)				
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       (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       S6.0 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)         Note: All sizes available-contact factory       204 (92.5)       262 (118.8)	Conformal Coating on UPS Circuit Boards	Ор	tional upon customer request at an added o	ost		
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       S6.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)       (PP70399 NEMA 3R Enclosure)         Note: All sizes available-contact factory       Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)	UPS Controls & Indicators					
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       36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)         (PP70399 NEMA 3R Enclosure)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)         (PP70399 NEMA 3R Enclosure)       204 (92.5)       262 (118.8)						
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       36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)         (PP70399 NEMA 3R Enclosure)       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight       Ib. (kg)       204 (92.5)       262 (118.8)         (PP70399 NEMA 3R Enclosure)       204 (92.5)       262 (118.8)	Audible Alarms	DC Mode, Low Battery, Over/Under Voltage, Over/Under Frequency, High Temp., Overload, Fault Alarm				
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)       Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Note: All sizes available-contact factory       204 (92.5)       262 (118.8)         (PP70399 NEMA 3R Enclosure)       204 (92.5)       262 (118.8)	Load Segment Control	Two programmable load segments, one continuous load segment (Except on -2 models)				
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 (PP70399 NEMA 3R Enclosure)       Ib. (kg)       204 (92.5)       262 (118.8)	Remote Emergency Power Off	(Standard) Meets NFPA 70, NEC 645	-11 (REPO hardwire connections located on	the UPS rear panel)		
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 (PP70399 NEMA 3R Enclosure)       Ib. (kg)       204 (92.5)       262 (118.8)	Communications	USB Port, RS-232C Serial Po	rt, Optional SNMP/HTTP Agent Board (UF	S Bundled UPSilon Software)		
Sample Dimensions inches (mm) HxWxD (PP70399 NEMA 3R Enclosure)       36.0 x 25.0 x 34.0 (914.4 x 635 x 863.6)         Note: All sizes available-contact factory       (Rear mounted external mounting brackets extend beyond stated dimensional height and are supplied with the system)         Sample Weight (PP70399 NEMA 3R Enclosure)       Ib. (kg)       204 (92.5)       262 (118.8)	System Enclosure Mechanical			·		
(PP70399 NEMA 3R Enclosure)	Sample Dimensions inches (mm) HxWxD (PP70399 NEMA 3R Enclosure)					
	Sample Weight Ib. (kg)	204 (92.5)	262 (1	18.8)		
	Agency Approvals	UPS - UL 1778, UL 50	Network CE, FCC Class B NEMA 3R Encl	osure - UL, cUL Listed		

### **SSG Pre-Configured NEMA 3R UPS Systems**

#### 1.5kVA to 3kVA

	Exten	ded VRLA Battery Bank	<pre>COptions</pre>		
Extended Battery Bank Model Numbers	SSGR SSGR-1 SSGR-2				
Battery Type	12-Year Rated, Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 7AH				
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 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 21.3 (88.9 x 482.6 x 541)		
Weight Ib. (kg)	Extended Battery Module = 70.6 (32) Extended Battery Module = 72.6 (32.9)				
For mounting dimensions, contact factory.					
(Note: Stated backup times a		ended VRLA Battery Ru GR, SSGR-1, SSGR-2 b	intimes attery banks and are stated by	UPS models below)	
UPS Model Numbers		61.5KRM-1 61.5KRM-2	SSG2.2KRM-1 SSG2.2KRM-2	SSG3KRM-1 SSG3KRM-2	
Backup Time by Model	105	0W / 525W	1540W / 770W	2100W / 1050W	
Full/Half Load in Minutes		0.1.10	10/07	a / 10 a	
UPS as Shipped One Extended Battery Bank	6 / 18		10 / 27 20.6 / 52	6 / 18.9 13 / 34.4	
Two Extended Battery Bank	23.7 / 60.5 48.6 / 118		20.6752 36.3790	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: Backup time may vary depending on tem	perature, battery age	e and condition. 5U height, 4	40Ah battery bank/charger option su	pports long backup requirements	
Lithium	ion Battery optio	n available on SSG1.5K	RM-1 and -2. Contact factory.		
		Communications Optic	ons		
Internal COM Board Model Numbers	UA88376-SSG	UA88376-SSG-HW	SNMP-SG-4	SNMP-MEGA-INT	
Туре	Dry Relay	Signal Interface	Ultra Secure SNMP/HTTP	Secure SNMP/HTTP	
COM Interface	DB-9F Hardwire Terminal Block		10/100 Ethernet (RJ45)		
Communications Specifications	Summary A	Jtility Loss, Low Battery, larm & On Bypass, lown while on Battery	Internet-based remote UPS monitoring and management via SNMP/HTTP		
External COM Board Model Numbers			SNMP-SG-5	SNMP-MEGA-EXT	
Туре			Ultra Secure SNMP/HTTP	Secure SNMP/HTTP	
COM Interface			10/100 Ethernet (RJ45)		
Communications Specifications			Internet-based remote UPS monitoring and management via SNMP/HTT		
·	External	Maintenance Bypass Sv	vitch Option*		
Bypass Switch Model Numbers	MB2K-1, MB2K-2		MB3K-1, MB3K-2		
Model Selection		with SSG1.5KRM-1 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, 120	0Vac 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					
UPS Output Connection	Hardwire				
	Hardwire 9.9 x 12.6 x 5.3 (251.5 x 320 x 134.6)				
Dimensions H x W x D inches (mm)	9.9 X 12.6 X 5.3 (251.5 X 320 X 134.6) 11 lbs. (5 kg)				
Weight Ib. (kg)					
Agency Approvals	UF	PS - UL 1778, UL 508, cUL, C	CE, FCC Class B NEMA 3R Enclosu	re - UL, cUL Listed	



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### Quick Facts: Falcon's SSG Industrial 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 -20°C to 55°C (-4°F to 131°F).

Many UPSs are rated from 0°C to 40°C, or are not agency certified at the 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– 12-year rated batteries with a 4-year life at 50°C. In industrial environments, other UPSs typically require battery replacements every 1 to 2 years.

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.

