



Uninterruptible Power Systems & Power Conversion Products

SG Series UPS Plus® 800 VA to 6kVA

- True Double Conversion On-Line Design
- Input Power Factor Correction
- Wide Input Voltage Window
- Pure Sinewave Output
- Precision Output Voltage Regulation
- Superior Brownout, Surge and Transient Protection
- Internal System Bypass
- Eliminates Generator Frequency & Voltage Drift
- Microprocessor Control & RS 232 Communications
- UPSILON Monitoring & Shutdown Software
- Optional Frequency Conversion
- Optional Extended Battery Packs & Chargers
- Optional Internal SNMP/HTTP Interface Card
- Two-Year Warranty



True Regenerative On-Line Design

As new and innovative technologies have become the backbone of today's businesses, maximum system availability is critical and downtime is more expensive than ever. Increasingly, businesses need a UPS that not only protects against blackouts, but also virtually eliminates more frequent and subtle power disturbances. Surges, sags, line noise and brownouts can disrupt proper operation of sensitive equipment. These disturbances may also create unnecessary production, service, and data recovery costs.

A True Regenerative On-Line UPS provides the highest level of protection against the widest spectrum of power problems. The incoming AC utility source is converted to a regulated DC voltage. From this DC voltage, a new AC voltage is regenerated, providing continuous, clean, tightly regulated power to your equipment. Line-interactive and Off-line designs leave your equipment connected directly to dirty utility power. They only provide minimal transient, voltage and backup protection. If your equipment operation is "Mission-Critical," a true double-conversion On-Line UPS, such as Falcon Electric's SG Series UPS Plus®, is the only clear choice.

Plus Input Power Factor Correction

All SG Series UPS Plus models include state-of-the-art Input Power Factor Correction. This greatly reduces the amount of current demanded from your building wiring system, yielding a highly efficient, "building friendly" UPS.

Plus Microprocessor Control

Falcon Electric's SG Series UPS incorporates advanced microprocessor technology. This technology makes possible a high level of internal UPS control and management. With the supplied UPSILON software, all SG Series UPS models support unattended shutdown, management, data logging, and self-diagnostics.

The software supports MS Windows® 95, 98, NT, 2000, 2000 Server, ME, XP, Novell Netware® 5 & 6, LINUX and FreeBSD. UPSILON for UNIX supports most popular UNIX platforms and OS versions.

Plus SNMP/HTTP Remote Management Support

Our SNMP/HTTP Agent board provides remote management and monitoring over any Ethernet LAN, WAN or the Internet utilizing a 10BaseT-type connection. The optional SNMP/HTTP agent installs via a port located on the back of every SG Series model.

Plus Extended Battery Ready

All SG Series models have continuous duty inverters and support the addition of optional external battery/charger packs. Whether your application requires a few additional minutes or hours, the SG Series is ready.

Plus Frequency Converter Capability

With a factory modification and the addition of an external input transformer, SG Series models can be configured for use as voltage and frequency converters. This makes the SG Series UPS Plus an ideal choice for worldwide power applications

SG Series™ UPS PLUS®

800VA to 1.5kVA

Model Number	SG800-1T	SG1K-1T	SG1K-2T	SG1.5K-1T
Nominal VA	800	1000	1000	1500

Electrical Input

Nominal AC Voltage	120V	120V	230V	120V
AC Voltage Range	87-140V	87-140V	170-275V	87-140V
Current-Amps	5.5	6.9	3.6	10.7
Frequency	50/60 Hz ± 5% (Auto – Tracking)			
Power Factor Correction	> 0.95			
Efficiency (Typical)	> 89%			> 86%

Electrical Output

Watts	560	700	700	1050
AC Voltage (Switchable)	100V 110V 115V 120V	100V 110V 115V 120V	200V 220V 230V 240V	100V 110V 115V 120V
Frequency	50/60 Hz (Auto Tracking)			
Frequency Stability	± 0.3% (Battery Mode)			
Voltage Regulation	± 2%			
Step Load Change	± 7% for 100% load variation			
Harmonic Distortion	< 3% Linear Load, < 5% Non-Linear Load			
Overload	105% load for 50 Seconds			
Crest Ratio	3:1			

Battery

DC Voltage	36V		72V	
Type	12V, 7AH Sealed Lead Acid Maintenance-Free			
Back Up Time @ Full Load	9 Minutes	6 Minutes		11 Minutes
@ 1/2 Load	25 Minutes	19 Minutes		30 Minutes
Recharge Time	8 Hours to 90%			

Battery times are approximate.

Transfer Time

Line Fails/Recovers	Zero
UPS to Bypass or Reverse	< 4ms
After Overload	Auto Transfer to UPS

Electrical Connections

Input	6' Cord with 5-15P	6' Cord with 5-15P	6' Cord with Schuko or 6-15P	6' Cord with 5-15P
Output	(6) 5-15R	(6) 5-15R	(4) IEC 320	(6) 5-15R

Contact the factory for other input/output options.

Environmental

Operating Temperature	0° C - 40° C (32° F to 104° F)
Humidity	10% to 95% Non – Condensing
Altitude	7,000 Feet
Cooling	Low Velocity Forced Air Fans
Audible Noise @ 1 Meter	< 50dBA

Controls and Indicators

LED	Line, Inverter, Battery Reserve, Load, Bypass, Alarm, Crest, Battery & Load Capacity Level
Audible Alarms	DC Mode, Low Battery, Over/Under Voltage, Over/Under Frequency, High Temp., Over Load, Fault Alarm
Communications	RS 232 Serial Port (Bundled UPSilon 2000 Software)

Mechanical

Dimensions H x W x D inches (mm)	8.7 x 6.0 x 15.8 (220.9 x 152.4 x 401.3)	13.8 x 7.6 x 18.9 (350.5 x 193.0 x 480.0)
Weight lb. (kg)	33 (14.9)	68 (30.9)
Agency Listing	UL 1778, FCC Class A	CE available with Schuko plug only UL 1778, CUL, FCC Class A

Available Options

Option A	60 Hz to 50 Hz Frequency Conversion
Option B	50 Hz to 60 Hz Frequency Conversion
Option C	SNMP/HTTP Network Card (Internal)
Option D	Standard Contact Closure Interface Card
Maintenance Bypass	Make-Before-Break External Wrap Around
External Battery Packs	Extended Run Time Battery Packs (minutes to hours)
Fast Battery Charger	Fast Charger internal to the Extended Battery Pack Cabinet (Required for battery times 2 hours or more.)

SG Series™ UPS PLUS® 2kVA & 3kVA

Model Number	SG2K-1T	SG2K-2T	SG3K-1T	SG3K-2T	SG2K-2TXI	SG3K-2TX
Nominal VA	2000		3000		2000	3000

Electrical Input

Nominal AC Voltage	120V	230V	120V	230V	230V	
AC Voltage Range	87 – 140V	170 – 275V	87 – 140V	170 – 275V	170 – 275V	
Current – Amps	14.2	7.4	21.4	11.2	7.5	11.3
Frequency	50/60 Hz ± 5% (Auto – Tracking)					
Power Factor Correction	> 0.95					
Efficiency (Typical)	> 86%				> 85%	

Electrical Output

Watts	1400		2100		1400		2100	
Output Number	1		1		1 & 2	3	1	2
AC Voltage (Switchable)	100V 110V 115V 120V	200V 220V 230V 240V	100V 110V 115V 120V	200V 220V 230V 240V	120V (700W each 5-20R)	208V 220V 230V 240V	120V (1400W Max.)	208V 220V 230V 240V
Frequency	50/60 Hz (Auto Tracking)							
Frequency Stability	± 0.3% (Battery Mode)							
Voltage Regulation	± 2%				± 5%		± 3%	
Step Load Change	± 7% for 100% load variation							
Harmonic Distortion	< 3% Linear Load, < 5% Non-Linear Load							
Overload ~ Crest Ratio	105% load for 50 Seconds ~ Crest Ratio of 3:1							

Battery

DC Voltage	72V		96V					
Type	12V, 7AH Sealed Lead Acid Maintenance-Free							
Back Up Time @ Full Load @ 1/2 Load	7 Minutes 20 Minutes		5.5 Minutes 15 Minutes		7 Minutes 20 Minutes		5.5 Minutes 15 Minutes	
Recharge Time	8 Hours to 90%							

Battery times are approximate.

Transfer Time

Line Fails/Recovers	Zero	
UPS to Bypass or Reverse	< 4ms	
After Overload	Auto Transfer to UPS	

Electrical Connections

Input	6' Cord with 5-20P	6' Cord with 6-20P, L6-20P or Schuko	6' Cord with L5-30P	6' Cord with 6-20P, L6-20P or Schuko	6' Cord with 6-20P, L6-20P or Schuko
Output	(6) 5-15R or (3) 5-15R & (1) 5-20R2	(6) IEC 320 or (1) L6-20R	(6) 5-15R or (3) 5-15R & (1) 5-20R2	(6) IEC 320 or (1) L6-20R	(1) 5-20R & (1) L6-20R

Environmental

Operating Temperature	0° C - 40° C (32° F to 104° F)	
Humidity	10% to 95% Non – Condensing	
Altitude	7,000 Feet	
Cooling	Low Velocity Forced Air Fans	
Audible Noise @ 1 Meter	<55dBA	

Controls and Indicators

LED	Line, Inverter, Battery Reserve, Load, Bypass, Alarm, Crest, Battery & Load Capacity Level	
Audible Alarms	DC Mode, Low Battery, Over/Under-Voltage, Over/Under-Frequency, High Temp., Overload, Fault Alarm	
Communications	RS 232 Serial Port (Bundled UPSilon 2000 Software)	

Mechanical

Dimensions HxWxD in.(mm)	13.8" x 7.6" x 18.9" (350 x 193 x 480)		13.8" x 7.6" x 30.0" (350 x 193 x 720)	
Weight lbs. (kg)	68.4 lbs. (31mm)		81.4 lbs. (37mm)	
Agency Listing	-1T – Models: UL 1778, CUL, FCC Class A. -2T Models: UL 1778, CUL, FCC Class A. CE available with Schuko plug only		UL 1778, CUL, FCC Class A	

Available Options

Option A	60 Hz to 50 Hz Frequency Conversion
Option B	50 Hz to 60 Hz Frequency Conversion
Option C	SNMP/HTTP Network Card (Internal)
Option D	Standard Contact Closure Interface Card
Maintenance Bypass	Make-Before-Break External Wrap Around
External Battery Packs	Extended Run Time Battery Packs (minutes to hours)
Fast Battery Charger	Fast Charger internal to the Extended Battery Pack Cabinet (Required for battery times 2 hours or more.)

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Falcon Electric, Inc. ~ Represented by CareBase ~ Michael Gibson ~ PO Box 2987 ~ Glenwood Spgs, CO 81602
 970.945.2770 ~ 800.430.2770 (US & CAN) ~ michael.gibson@carebase.com ~ http://www.carebase.com

SG Series™ UPS PLUS® 5kVA to 6kVA

Model Number	SG5K-1TX & -1TXC	SG5K-2TX & -2TXC	SG5K-2T & -2TC	SG6K-1TXC	SG6K-2TX & -2TXC	SG6K-2T & -2TC
Nominal VA	5000	5000	5000	6000	6000	6000

Electrical Input

Nominal AC Voltage	120V	230V	230V	120V	230V	230V
AC Voltage Range	87-140V	170-275V	170-275V	87-140V	170-275V	170-275V
Current-Amps	38.7	20.3	19.5	46.6	24.3	23.4
Frequency	50/60 Hz ± 5%					
Efficiency (Typical)	> 79%		> 82%		> 79%	
Power Factor Correction	> 0.95					

Electrical Output

Watts	3500			4200			
AC Voltage (Switchable except where noted)	120 & 208V or 120 & 220V or 120 & 240V (No Switching)	(1) 120V (1) 230V (1) 240V	208V 220V 230V 240V	208V 220V 230V 240V	120 & 208V or 120 & 220V or 120 & 240V (No Switching)	(1) 120V (1) 230V (1) 240V	208V 220V 230V 240V
Isolation Transformer	No	Yes	No	No	No	Yes	No
Frequency	60Hz	50/60Hz	50/60Hz	50/60Hz	60Hz	50/60Hz	50/60Hz
Voltage Regulation	± 4%		± 3%		± 4%		± 3%
Frequency Stability	± 0.3% (Battery Mode)						
Step Load Change	± 7% for 100% load variation						
THD – Linear Loads	< 3%						
THD – Non-Linear Loads	< 7%		< 5%		< 7%		< 5%
Overload ~ Crest Ratio	105% for 50 Seconds ~ Crest Ratio 3:1						

(1) Contact factory for output settings. Matching input/output or dual output voltage capability.

Battery

DC Voltage	240V	
Type	12V, 7AH Sealed Lead Acid Maintenance-Free	
Back Up Time	9 Minutes @ Full Load; 28 Minutes @ ½ Load	7 Minutes @ Full Load; 18 Minutes @ ½ Load
Recharge Time	10 Hours to 90%	

Battery times are approximate.

Electrical Connections Input

-1TX	Hardwire			Hardwire	
-1TXC	L5-50P				
-2T			Hardwire		Hardwire
-2TC			L6-30P		L6-30P
-2TX		Hardwire			Hardwire
-2TXC		L6-30P			L6-30P

Electrical Connections Output (Note: Other input & output configurations are available, please call).

-1TX	Hardwire			Hardwire	
-1TXC	(2) duplex 5-20R & (1) L6-30R				
-2T			Hardwire		Hardwire
-2TC			(1) L6-30R		(1) L6-30R
-2TX		Hardwire			Hardwire
-2TXC		(2) duplex 5-20R & (1) L6-30R			(2) duplex 5-20R & (1) L6-30R

Environmental

Operating Temperature	0° C to 35° C (32° F to 95° F)
Humidity ~ Altitude	10% to 95% Non – Condensing ~ Altitude 7,000 Feet
Cooling	Low Velocity Forced Air Fans
Audible Noise @ 1 Meter	< 55dBA

Controls and Indicators

LED	Line, Inverter, Battery Reserve, Load, Bypass, Alarm, Crest, Battery & Load Capacity Level
Audible Alarms	DC Mode, Low Battery, Over/Under Voltage, Over/Under Frequency High Temp., Over Load, Fault Alarm
Communications	RS 232 Serial Port (Bundled UPSilon 2000 Software)

Mechanical

Dimensions H x W x D inches (mm)	Hardwired Models	32.1 x 10.2 x 21.8 (815.3 x 259.0 x 553.7)		Receptacle Models	32.1 x 10.2 x 27.0 (815.3 x 259.0 x 685.8)
Weight lbs. (kg)	(T) 216lbs. (98kg) ~ (TX) 299lbs. (136kg) (TC) 239lbs. (108kg) ~ (TXC) 322lbs. (146kg)				
Agency Listing	UL1778, CUL, FCC Class A	-2T UL 1778, CUL, FCC Class A, CE All other UL1778, CUL, FCC Class A		UL1778, CUL, FCC Class A	-2T UL 1778, CUL, FCC Class A, CE All other UL1778, CUL, FCC Class A