Uninterruptible Power Systems & Power Conversion Products

SG Series™ UPS Plus® *800VA to 6kVA*

- **True Double Conversion On-Line, Sinewave Design**
- **Input Power Factor Correction**
- **Wide Input Voltage Window**
- **Precision Output Voltage Regulation**
- **Superior Brownout, Surge and Transient Protection**
- **Internal System Bypass**
- **Eliminates Generator Frequency & Voltage Drift**
- **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.

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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)	> 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 @ 1/2 Load	9 Minutes 25 Minutes	6 Minutes 19 Minutes		11 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	<45dBA	< 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, 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.)

SG Series™ UPS PLUS® *2kVA & 3kVA*

Model Number	SG2K-1T SG2K-1T-HW	SG2K-2T SG2K-2T-HW	SG3K-1T SG3K-1T-HW	SG3K-2T SG3K-2T-HW	SG2K-2TX SG2K-2TXI[1]	SG3K-2TX SG3K-2TXI[2]
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	
AC Voltage (Switchable)	100V 110V 115V 120V	200V 220V 230V 240V	100V 110V 115V 120V	200V 220V 230V 240V	120V [1](700W split-phase, each 5-20R)	208V 220V 230V 240V	120V [2]1050W split-phase, each 5-20R)	208V 220V 230V 240V
Frequency	50/60 Hz (Auto Tracking)							
Frequency Stabi lity	± 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	105% load for 50 Seconds							
Crest Ratio	3:1							

Battery

DC Voltage		72V	96V		
Type		12V, 7AH Sealed Lead Acid Maintenance-Free			
Back Up Time	@ Full Load	7 Minutes	5.5 Minutes	7 Minutes	5.5 Minutes
	@ 1/2 Load	20 Minutes	15 Minutes	20 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	- T Models	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
	-HW Models	Hardwire				Hardwire Not Available
Output	-T Models	(6) 5-15R or (3) 5-15R & (2) 5-20R	(6) IEC 320 or (1) L6-20R	(6) 5-15R or (3) 5-15R & (2) 5-20R	(6) IEC 320 or (1) L6-20R	(2) 5-20R & (1) L6-20R
	-HW Models	Hardwire				Hardwire Not Available

Contact the factory for other input/output options.

Environmental

Operating Temper ature	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 inch es (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 lb. (kg)	68.4 (31)	81.4 (37)	150.0 (68)
Agency Listing	-1T Models: UL 1778, CUL, FCC Class A -HW Models: UL 1778 & CUL pending -2T Models (except –HW models): UL 1778, CUL, CE available with Schuko plug only		

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 Cabin et (Required for battery times 2 hours or more.)

SG Series™ UPS PLUS® *2kVA & 3kVA Isolated Input*

Model Number	SG2K-X1T	SG2K-X2T	SG3K-X1T	SG3K-X2T
Nominal VA	2000		3000	

Electrical Input

Nominal AC Voltage (Factory configurable taps please specify at the time of order)	120V	208V 220V 240V	120V	208V 220V 240V
AC Voltage Range	87 – 140V	170 – 275V	87 – 140V	170 – 275V
Current – Amps	14.2	7.4	21.4	11.2
Frequency	50/60 Hz ± 5% (Auto – Tracking)			
Power Factor Correction	> 0.95			
Efficiency (Typical)	> 86%			

Electrical Output

Watts	1400	2100
AC Voltage (user settable)	200V 220V 230V 240V	200V 220V 230V 240V
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	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	
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	Detachable 6' Line Cord with a L6-20P or Schuko	6' Cord wit L5-30P	Detachable 6" line cord with a L6-20P or Schuko
Output	(1) Duplex 5-20R or (1) L5-20R	(6) IEC 320 or (1) L6-20R	(1) Duplex 5-20R or (1) L5-30R	(6) IEC320 or (1) L6-20R

Contact the factory for other input/output options.

Environmental

Operating Tempera ture	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 inche s (mm)	13.8 x 7.6 x 18.9 (350 x 193 x 480)	
Weight lb. (kg)	68.4 (31)	81.4 (37)
Agency Listing	UL 1778 & CUL, Pending	

SG Series™ UPS PLUS® *5kVA & 6kVA*

Model Number	SG5K-1TX & --1TXC	SG5K-2TX & -2TXC[2]	SG5K-2T & -2TC	SG6K-1TX	SG6K-2TX & -2TXC[2]	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%		> 82%
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) (1)	208V 220V 230V 240V	208V 220V 230V 240V	120 & 208V or 120 & 220V or 120 & 240V (No Switching)	(1) 120V (1) (1)	208V 220V 230V 240V	208V 220V 230V 240V
Isolation Transformer	No	Yes	No	No	No	Yes	No	No
Frequency	60Hz	50/60Hz	50/60Hz	50/60Hz	60Hz	50/60Hz	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	105% for 50 Seconds							
Crest Ratio	3:1							

(1) Contact the factory for output settings.
(2) Available with a Split -Phase output.

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Battery

DC Voltage	240V	
Type	12V, 7AH Sealed Lead Acid Maintenance-Free	
Back Up Time @ Full Load	9 Minutes	7 Minutes
@ 1/2 Load	28 Minutes	18 Minutes
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

-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	

Contact the factory for other input/output options.

Environmental

Operating Temperature	0º C to 35º C (32º F to 95º 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. , 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 lb. (kg)	T	216 (98)		
	TX	299 (136)		
	TC	239 (108)		
	TXC	322 (146)		
Agency Listing	UL1778, CUL, FCC Class A	**2T: UL1778, CUL, FCC Class A & CE** All others: **UL1778, CUL, FCC Class A**	UL1778, CUL, FCC Class A	**-2T: UL1778, CUL, FCC Class A, CE** All others: **UL1778, CUL, FCC Class A**

Available Options: Extended Run Time Battery Packs, Make-Before-Break Maintenance Bypass, SNMP/HTTP Network Card, Frequency & Voltage Conversion.

SG Series™ UPS PLUS® *5kVA & 6kVA Isolated Input*

Model Number	SG5K-X1T	SG5K-X2T	SG5K-X2TC	SG6K-X1T	SG6K—X2T	SG6K-X2TC
Nominal VA		5000			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	20.3	46.6	24.3	24.3
Frequency	50/60 Hz ±5%					
Efficiency (Typical)	> 79%					
Power Factor Correction	> 0.95					
Input Isolation Transformer	Yes					
Leakage Current	<300øA					

Electrical Output

Watts	3500	4200
AC Voltage (Switch selectable)	208V 220V 230V 240V	
Frequency	50/60Hz	
Voltage Regulation	±3%	
Frequency Stability	± 0.3% (Battery Mode)	
Step Load Change	±7% for 100% load variation	
THD – Linear Loads	< 3%	
THD – Non-Linear Loads	<5%	
Overload	105% for 50 Seconds	
Crest Ratio	3:1	

(1) Contact the factory for output settings.
(2) Available with a Split -Phase output.

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Battery

DC Voltage	240V	
Type	12V, 7AH Sealed Lead Acid Maintenance-Free	
Back Up Time @ Full Load @ 1/2 Load	9 Minutes 28 Minutes	7 Minutes 18 Minutes
Recharge Time	10 Hours to 90%	

Battery times are approximate.

Electrical Connections Input

Type	Hardwire	6" line cord with L6 - 30P	Hardwire	6" line cord with L6-30P

Electrical Connections Output

Type	Hardwire	(1) L6-30R	Hardwire	(1) L6-30R

Contact the factory for other input/output options.

Environmental

Operating Temperature	0º C to 35º C (32º F to 95º 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. , Over Load, Fault Alarm
Communications	RS-232 Serial Port (Bundled UPSilon 2000 Software)

Mechanical

Dimensions H x W x D inches (mm)	32.1 x 10.2 x 21.8 (815.3 x 259.0 x 553. 7)	32.1 x 10.2 x 27.0 (815.3 x 259.0 x 685.8)	32.1 x 10.2 x 21.8 (815.3 x 259.0 x 553.7)	32.1 x 10.2 x 27.0 (815.3 x 259.0 x 685.8)
Weight lb . (kg)	299 (136)	322 (146)	299 (136)	322 (146)
Agency Listing	UL1778 & CUL, Listed FCC Class A			

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