

# 1KVA to 3KVA

## Single-phase units

# Sigma Series: Series VII

### **On-line protection for Computer Servers**

The Sigma Series VII is the mighty turbo in the single phase ONLINE family of uninterruptible power supplies by HELIOR. The Series VII provides reliable protection, also high-end applications and is extensively equipped to master all eventualities.



### **Sigma`s outstanding features:**

- ◆ Pure sine wave output
- ◆ Tower / Rack multi-configuration for flexible installation
- ◆ Microprocessor control guarantees high reliability
- ◆ Adopting high frequency full bridge topology for high steady performance
- ◆ High input power factor correction
- ◆ Selectable various output range and operating mode
- ◆ Cold start function
- ◆ Inbuilt static bypass enhance better protection for critical load
- ◆ Built-in dry contact/RS-232/EPO communication port
- ◆ SNMP allows for web-based remote or monitoring management
- ◆ Optional USB communication port
- ◆ Enable to extend runtime with scalable external battery pack
- ◆ Overload, short-circuit, and overheat protection
- ◆ Hot-swappable battery design
- ◆ Compact size with high over all efficiency

### **Sigma Series:**

#### **True on-line double conversion technology with integrated static bypass mechanism**

In normal operation, the Sigma Series converts the mains AC voltage into DC voltage which supplies a battery and an inverter with energy.

The inverter generates a sine wave AC voltage which is permanently available at the output.

If and when power problems strike, the battery delivers the required power to the inverter.

The additional Bypass system integrated into the UPS device guarantees an unprecedented level of power supply security.

In overload conditions the Bypass system automatically switches mains power directly through to the user.

Using module design to improve reliability of the UPS, also simplify service maintenance.

**HELIOR**  
INSURE YOUR SYSTEM



Technical Specifications							
Model		S1KL	S1KSL	S2KL	S2KSL	S3KL	S3KSL
Power		1kVA/800W		2kVA/1600W		3kVA/2400W	
Input	Input system	Single phase & earth ground					
	Rated voltage	230VAC					
	Voltage range	138V to 300V (0~60% load);138~161V to 300V (60%~80% load);161~184V to 300~286V (80%~100% load)					
	Frequency	50/60 Hz +/- 5 Hz (Auto sensing)					
	Power factor	>0.98 @ full load					
	Voltage range of bypass	230VAC±10%(adjustable)					
Output	Output system	Single phase & earth ground					
	Rated voltage	220/230/240VAC					
	Power factor	0.8					
	Voltage precision	±1%					
	Normal mode	45 ~ 55(adjustable)					
	Battery mode	50±0.1Hz					
	Inverter overload Capacity	Line Mode: Over 110% for 2mins,then transfer to bypass and alarm. Over 120% for 1s, then transfer to bypass and turn off output after 1min and alarm Battery Mode: Over 110% for 30s,then turn off output and alarm. Over 120% for 1s, then turn off output and alarm.					
	Transfer time	0ms ( Normal mode ⇌ Battery mode ) 0ms ( Normal mode ⇌ Bypass mode )					
Crest factor	3:1						
Battey	Batteries voltage	24VDC		72VDC		96VDC	
	Battery capacity×Quantity	12VDC×2		12VDC×6		12VDC×8	
	Charge current	2A for Internal batteries; 6A max. (Adjustable)					
	Backup Time	Dependent on the capacity of batteries(Long backup time)					
	Battery charge time	Charger to 90% battery capacity in 3 hours ( Standard ) Dependent on the capacity of external batteries ( Long backup time )					
Communicate & Interface	Interface port(s)	RS232+Dry contact (DB9)+USB(Optional)					
	Optional cards	SNMP Adaptor					
	LCD display	Information for Load / Battery / Input / Output and Operating Mode					
	Audible alarm	Actively audible alarm for utility failed/ battery low /overload condition					
	Silence switch	Yes					
	EPO	Yes					
Environmental	Noise level	<45dB@1Meter		<50dB@1Meter			
	Operating temp.	0-1,500m @ 0-40°C / 1,501-3,000m @ 0-35 °C					
	Storage temp.	-20°C ~ 55°C					
	Relative humidity	0 ~ 95% humidity, non-condensing					
	Operating elevation	3,000 meters					
Physical	Installation	Rack & Tower (2-in-1)					
	Dimension (DxWxH)	395x110x260mm(for UPS); 425x110x260(for Battery pack)					
	Net weight (kg)	12	6.5	25	7	30	7.5



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