



# Smart-UPS Industrial 1300VA & 2000VA

## Trusted Power Protection Solution for Intelligent Transportation Systems (ITS)

### Challenges

Intelligent transportation systems (ITS) are using innovative traffic management technology such as adaptive signal controls, emergency vehicle preemption and incident monitoring to help citizens use roadways in a efficient manner. As more intelligent devices are installed in roadside cabinets, Preventing equipment failures from power events becomes increasingly critical.

### Solution

Designed to operate in harsh environments, APC™ Smart-UPS™ Industrial not only provide high-density, double-conversion online power protection and advanced management for ITS, but also ensure backup time during power outages when used with external batteries. Smart-UPS Industrial are perfect solutions to protect your systems from power outages and prevent unnecessary maintenance calls due to power fluctuations.

### Benefits

- 1 Improve Intersection Safety While Reducing Operating Costs**
  - Clean power with double-conversion on-line
  - Lowers maintenance costs by reducing service calls to reset signal operation
  - Reduces risk due to dark/flashing intersections by improving signal uptime
  - Extends battery life by lowering cycle count
  - Extends battery life by handling many power quality issues electronically
- 2 Remotely manage your UPS Fleet with Certainty**
  - Configure, receive notifications, review event logs, run diagnostics test & check battery runtime status
  - Manage the entire system with detailed battery information and early fault warnings
  - Ecostruxure™ IT integration: collect & distribute critical alerts with a unified view of physical infrastructure environments from anywhere on the network
- 3 Maintain ITS Network Security**
  - Imbedded Network Management Card allows for secure remote monitoring & control of a UPS via web browser, CLI, SNMP (v1/v2c/v3), Modbus TCP and BACnet/IP
  - Adopts the latest network communication protocols for improved security
- 4 Eliminate Maintenance Headaches**
  - Field replaceable fan/filter for easy replacement
  - Quick troubleshoot with user-friendly LCD screen
  - 24/7 support from Schneider Electric's established service & support team
- 5 Outperform Roadside Environments**
  - Conformally coated for humidity & pollution tolerance
  - Designed for -37 °C to +74 °C (-40°F to 165°F) operating temperatures with integrated temperature compensated charging system



### What do customers say about Smart-UPS Industrial?

*"The 1300VA power management unit takes everything that makes APC great in the server room and puts it on street in intelligent transportation systems. The power protection and battery backup features are a great fit for an intersection, while the remote monitoring capabilities and versatility allow for easy deployment in any traffic cabinet."*

*-Eric from City of Sevierville, Tennessee*

[www.apc.com/secure-ups](http://www.apc.com/secure-ups)

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by Schneider Electric

# Smart-UPS Industrial On-Line 120VAC Output Overview



- 1 Easily Replaceable Filter
- 2 Easily Replaceable Fan Assembly
- 3 Serial port to communicate with the Smart-UPS Industrial
- 4 External Battery Circuit Breaker to connects/disconnect battery power
- 5 USB Port
- 6 Universal I/O Port to connect optional environmental monitoring accessories
- 7 Reset Button to restart the Network Management Interface
- 8 Ethernet Port for network communication
- 9 Status LEDs
- 10 LCD for real-time status updates and UPS control
- 11 Battery Communication Connector
- 12 External bypass box interface (RS485 and +24 VDC power)
- 13 Input AC Circuit Breaker to connects/disconnects AC power
- 14 AC Input Connector
- 15 AC Output Connector
- 16 Relay Input Connector
- 17 Battery Test Points
- 18 Relay Output Connector
- 19 Battery Temperature Sensor Connector (Sensor cable and mating connector are supplied with the battery harness kit)
- 20 Battery Connector (Cables are not provided along with the UPS)

## LCD Display Features



### LCD display screen

Accurately provides real-time status updates in your choice of basic or advanced menus

### UPS status (scrolling)

- Output voltage
- Input voltage
- Output frequency
- Runtime
- Load
- Battery health

### Control

- UPS and outlet group settings
- Bypass control

### Configuration

- Output voltage, frequency
- Language, brightness, contrast
- Alarm volume
- IP address

### Test and diagnostics

- Initiate battery and runtime calibration tests

### About

- UPS serial number, battery part number
- Battery install and suggested replacement dates

# Smart-UPS Industrial On-Line 120VAC Output

## Main applications

- Traffic Signals
- Ramp Metering
- Roadside Monitoring Systems
- Dynamic Message Signs
- Public Transportation Field Controls
- Tolling Systems
- Tunnel Control Systems
- Rail Crossings Signals



## Accessories

### Battery Harness Kit (required)

Connect the 48V battery string to the product to enable the use of multiple battery strings.

Part numbers:

XHXXS7A4F - SBS75 Cabinet Accessory 4 ft

XHXXS7A8F - SBS75 Cabinet Accessory 12 ft

### Extended Temperature Batteries

Long backup times available with up to eight 100 Ah lead-acid batteries. Extend temperature with batteries best suited for harsh environments.

Part numbers:

XB102XX1XS - Battery 100Ah 12VDC

XB050XX1XS - Battery 50Ah 12VDC

### Service Bypass Unit with Generator Input

Removes the UPS for service without disrupting the operation of the traffic signal while allowing for generator input power

Part number:XS30ALLXXR2G



### Battery Heater Mat

Allows battery use in extreme temperatures – 2 sizes available: 256 and 365 sq. in.

Part numbers:

XM050DXXXA - Battery Heater Mat 256 Sq In. 120VAC

XM102DXXXA - Battery Heater Mat 365 Sq In. 120VAC

### Environmental Monitoring Accessories

Optional accessories to increase environmental control through sensors.

Part numbers:

AP9335TH - Temperature/humidity sensor

AP9810 - Relay input/output connector - supports two input contacts and one output relay

### Service Bypass Unit

Removes the UPS for service without disrupting the operation of the traffic signal

Part number:XS30ALLXXR2



## Trusted power protection for Intelligent Transportation Systems



# Technical Specifications



Product SKU	XU1K3LLXRCC	XU2K0LLXRCC
<b>Output</b>		
Output Topology	Double Conversion On-Line	
Nominal Output Voltage	120 VAC	
Output Power Rating	1300W, 1300VA	1800W, 2000VA
Output Voltage Regulation (static)	± 1%	
Output Frequency (nominal)	50/60 Hz ± 3 Hz	
Output Waveform	Pure Sinewave	
<b>Input</b>		
Nominal Input Voltage	120 VAC	
Input Voltage Range	85 to 155 VAC	
Input Frequency	40 to 70 Hz	
Input Connection	Single phase, 3 wire (Line, Neutral and Ground)	
<b>Communication and Management</b>		
Interface Ports	Ethernet via Embedded Network Management Card (NMC) & USB	
Control Panel and Audible Alarms	High-resolution graphical LCD display; alarm on battery, distinctive low battery alarm and configurable delays	
<b>Environment</b>		
Temperature - Operation	-40 to 74° C (-40 to 165° F)	
Temperature - Storage (without batteries)	-40 to 85° C (-40 to 185° F)	
Maximum Elevation - Operating	0 to 3,000 m (0 to 10,000 ft)	
Maximum Elevation - Storage	0 to 15,000 m (0 to 50,000 ft)	
Humidity	0% to 95% relative humidity, non-condensing	
<b>Physical</b>		
Unit Weight without Packaging	10 kg (22.05 lb)	
Unit Weight with Packaging	12 kg (26.5 lb)	
Unit Dimensions without Packaging Width x Depth x Height	432 mm x 260 mm x 88 mm (17.01 in x 10.3 in x 3.5 in)	
Unit Dimensions with Packaging Width x Depth x Height	535 mm x 370 mm x 186 mm (21.1 in x 14.6 in x 7.3 in)	
<b>Conformance</b>		
Warranty	3-year factory warranty with optional extended warranty	
<b>External Batteries</b>		
SKU	XB050XX1XS	XB102XX1XS
Rating	50 Ah, 12 VDC	100 Ah, 12 VDC
Battery Type	Maintenance-free sealed lead-acid battery with suspended electrolyte; leak proof	
Typical Backup Time at Varying Load Conditions	Please refer to <a href="http://www.apc.com">www.apc.com</a> for runtime charts	
<b>Battery Harness Kit</b>		
SKU	XHXXS7A4F	XHXXS7A8F
Descriptions	SBS75 cabinet accessory 4 ft	SBS75 cabinet accessory 12 ft

# Technical Specifications – Service Bypass Unit



Product SKU	XS30ALLXXR2G	XS30ALLXXR2
<b>Output</b>		
Nominal Output Voltage	120 Vac	
# of Outlets	1	
Outlets Connection type	4 pole PP45 power pole connector	
Overload protection	No	
<b>Input</b>		
Nominal Input Voltage	120 Vac	
Current Rating	30A Max	
Input Frequency	50 to 60 Hz	
Recommended Input circuit Breaker	30A ,Dual pole branch rated	
Generator Input	120 Vac	N/A
<b>Environment</b>		
Temperature - Operation	-40 to 74° C (-40 to 165° F)	
Temperature - Storage (without batteries)	-40 to 85° C (-40 to 185° F)	
Maximum Elevation - Operating	0 to 3,000 m (0 to 10,000 ft)	
Maximum Elevation - Storage	0 to 15,000 m (0 to 50,000 ft)	
Humidity	0% to 95% relative humidity	
Protection Class	IP20	
<b>Physical</b>		
Unit Weight without Packaging	2.2 kg (4.9 lb)	1.25 kg (2.8 lb)
Unit Weight with Packaging	5.7 kg (12.6 lb)	4.5 kg (9.9 lb)
Unit Dimensions without Packaging Width x Depth x Height	432 mm x 100 mm x 88 mm (17 in x 3.93 in x 3.5 in)	280 mm x 72 mm x 88 mm (11 in x 2.8 in x 3.5 in)
Unit Dimensions with Packaging Width x Depth x Height	535 mm x 370 mm x 186 mm (21.1 in x 14.6 in x 7.3 in)	460 mm x 295 mm x 190 mm (18.1 in x 11.6 in x 5.9 in)
<b>Conformance</b>		
Safety	UL-1778 (CSA 107.3 for Canada)	
CALTRANS	Caltrans Specification (TEES) March 12 , 2009 version	
Warranty	3-year factory warranty	

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