

*"The most innovative automatic transfer switch on the market"*

## KWX-ATS16A8x2-H1C20



**KWX-ATS16A8x2-H1C20** - 10 port (8x C13 slide lock & 2x C19) 19" rack mountable intelligent automatic transfer switch.

PDU eXperts KWX Automatic Transfer Switches (ATS) seamlessly switch loads between primary and backup power sources, this combined with real time power monitoring and built in environmental monitoring makes it one of the most advanced transfer switches on the market.



**Dimensions:** 440mm x 45mm x 330mm (W x D x L)

**Mounting length:** 483mm

### Key Features

- Total PDU monitoring
- Adjustable sequential powering (on)
- 8 millisecond Switch over
- Total current monitoring
- Total voltage input & output monitoring
- Total kWh used
- Power factor recognition
- Up to 55°C Hot aisle operating capacity
- SMS, SNMP & Email
- Built in environmental monitoring as standard
  - o Temperature & humidity alarm sensor
  - o Water logging alarm sensor
  - o Rack door tamper sensor
  - o Infrared sensor
  - o Smoke detector
- Automated alarm notifications
- Up to 8 plug and play sensors
- Lockable IEC C13 sockets as standard
- Blade server ready
- Intelligent outlet type and recognition
- 24v & 48v DC, Single phase 120v & 240v & 3 phase 400v
- Effortless user friendly PDU management interface
- Control up to 3 KWX-ATS slaves from a master KWX-ATS
- 2x IEC C20 inputs
- 8x IEC C13 (slide lock) & 2x IEC C19 outputs



## KWX-ATS series

### Intelligent Automatic Transfer Switches

In the event where the primary power source becomes unavailable, the KWX ATS will flawlessly source power from the secondary source without interrupting sensitive equipment, the switching occurs in just 8ms safely between the two input sources regardless of their phase.



PDU eXperts intelligent KWX-ATS management software enables the administrator to give designated users predetermined control over whole ATS units or even single outlets over a range of ATS units. Users have the ability to monitor and control directly through the ATS units network module on site, or remotely using our embedded multithreading inner core "Real time operating systems" (RTOS) software.

The management software is accessible within the data centres secure hardwired network, supporting various TCIP/IP protocols, including HTTP, HTTPS, SSL, SNMP versions 1,2 & 3, TELNET, SSH, SMTP and NTP from any network PC or laptop.

KWY Automatic Transfer Switches are available in a range 19" horizontal rack mounted options, with a variety of outlets including slide lock IEC C13 as standard, IEC C19, UK BS1363, NEMA (5-15), SCHUKO (EEC 7/4). Input/load connectors options include single phase 16A / 32A and 3 Phase IP44 Commandos.

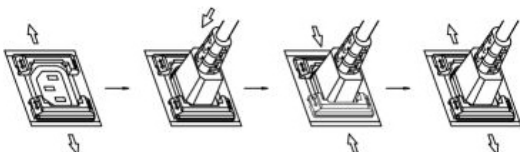
**N1** – ATS total power monitoring – Provides real time power consumption (current / voltage), total power (kW) used, apparent power and power factor.

**N2** – Individual port power monitoring – Provides real time ATS power consumption & the current on individual ports, total power (kW) used, apparent power and power factor.

**N3** – ATS monitoring & individual port switching – Provides real time power consumption, total power (kW) used, apparent power and power factor. Each individual port/outlet is also switchable (ON / OFF)

**N4** – ATS and per port power monitoring and switching – Complete power monitoring and switching (ON / OFF) of the ATS and each individual port, total power (kW) used, apparent power and power factor.

Feature	Function	N1	N2	N3	N4	
Monitor functions	LED Display	Total & individual port current load	✓	✓	✓	✓
		Overload flashing LED alarm	✓	✓	✓	✓
		ATS IP address, version number	✓	✓	✓	✓
	Management software / Hyper terminal	Total current load	✓	✓	✓	✓
		Monitors current load per port	✗	✓	✗	✓
		Input voltage	✓	✓	✓	✓
		Configure low/high voltage limits	✓	✓	✓	✓
		Configure low/high Current limits	✓	✓	✓	✓
		Sensor(s) state (optional)	✓	✓	✓	✓
		Power ON/OFF individual ports	✗	✗	✓	✓
Control functions	PC Control	Power ON/OFF ATS	✗	✗	✓	✓
		Set Primary Power source	✓	✓	✓	✓
		Intelligent setup memory on restart	✗	✗	✓	✓
		Access methods	RS 485 port	✓	✓	✓
Daisy chain connections		Serial connection	✓	✓	✓	✓
		Radial connection	✓	✓	✓	✓



#### Slide locking IEC C13 outlets

All KWX-ATS units come with lockable IEC C13 outlets as standard.

## KWX-ATS Series Interface

The KWX-ATS management software has an effortless interface giving easy access to the master ATS unit and any of its slaves (up to 3 KWX-ATS units). The interface allows multiple users to not only monitor the power usage, but also set input/output thresholds (depending on version), if these parameters are exceeded KWX-ATS units engage both visual and audible alarms, these alarms can also be configured to be sent via SMS or Email to designated users.

Each KWX-ATS is given a default IP address which can be changed by the administrators to meet your networks requirements and can be accessed via most popular browsers such as Internet Explorer, Google Chrome, Edge, Fire fox etc.

Real time Power usage & outlet monitoring

SEL No.	Outlet	Socket Model	Status	ON/OFF	Action
1-A1	Outlet_1_1	IEC 320 C19	-	ON	Complete
1-A2	Outlet_1_2	IEC 320 C19	-	ON	Complete

GENERAL INFORMATION		
Energy of A:	0.7 kWh	Energy of B: 0.2 kWh
Model:	KWX-ATS32A2C19-H3	Address Code: A0132E
Power Type/Supply:	ATS/AC	
ATS Status	Service Power: Input Power B	
Voltage A:	232 V	Voltage B: 232 V
Instantaneous Power:	0.0 W	Rated Power: 7040.0 W
		Remaining Power: 7040.0 W

Configure power thresholds

Configure user accounts and email alarm notifications

Real time event log including alerts, user logins and reboots.

DateTime	Event Type	Event Source	Event Description
01/01/2000 00:02:20	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 237; B: 0
01/01/2000 00:01:06	ATS	A->B (A0132E/Power1)	Back To Master: A: 237; B: 236
01/01/2000 00:00:12	ATS	B->A (A0132E/Power1)	Select Priority: A: 251; B: 0
01/01/2000 00:25:04	ATS	A->B (A0132E/Power1)	Back To Master: A: 233; B: 233
01/01/2000 00:24:04	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 155
01/01/2000 00:24:04	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:24:07	ATS Volt	B Voltage(A0132E/Power1)	Normal
01/01/2000 00:24:01	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 266; B: 0
01/01/2000 00:24:02	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:24:02	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:24:03	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:24:03	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:23:58	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 176
01/01/2000 00:23:58	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:23:59	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:23:59	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:24:00	ATS Volt	B Voltage(A0132E/Power1)	Lower: 188( 190-260 )
01/01/2000 00:23:56	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 139
01/01/2000 00:23:56	ATS	B->A (A0132E/Power1)	Volt. Lower: A: 0; B: 0
01/01/2000 00:23:57	ATS	A->B (A0132E/Power1)	Volt. Lower: A: 0; B: 0

## KWX-ATS Series environmental monitoring.

PDU eXperts KWX-ATS series is complete with built in environmental monitoring software, with up to 8 'plug n play' sensors (optional) to monitor the server rack or data centers direct environment conditions (temperature & humidity sensor, smoke detector or water logging sensor) or add additional security (door tamper sensor or infrared sensor).

The environmental monitoring is accessible via the management software and includes individual user permissions, threshold settings and alarm notifications. It is an ideal system for small data centers, although often used as an addition to pre-installed systems in larger data centers.



Temperature/  
Humidity Sensor



Water Logging  
Sensor



Infrared Sensor



Smoke Sensor



Door Sensor



Cascade up to 8 plug 'n' play  
environmental sensors to  
security and peace of mind



## KWX-ATS Specifications

Feature	Description	Function / Parameter	Note
Working Voltage	Normal conditions	90V~250V AC	
Input/output current	Max input/output current	10A / 16A	
Working frequency	Normal conditions	47Hz~60Hz	
Access ports	Network	Network port WAN or LAN access	10/100Mb adaptive networking
	Serial	Serial port	RS485 port
	Sensors	Sensor ports	RS485 port
Data / management access	HTTP/HTTPS	Web browser access	Internet Explorer, Google Chrome, Edge, Fire fox etc.
	Telnet	Simple command line	/
	SSH	Encryption command	SSH v2 supported
	SNMP	SNMP centralised monitoring	SNMP v1, v2, & v3
System capability	Supported by various popular operating systems	Windows 7 /8 /8.1/10 & Linux etc.	
	System integration	TELNET / SSH protocol	
	RS485 connection	Customized protocol	
Software/Firmware Update / Upgrade	Software / firm ware updates	Via web site / Support technician	
	BIOS Firmware updates (if necessary)	Support technician	
Alarm setting thresholds	Total current limits (low / high)	Automatic detection & automated SMS / Email notifications	
	Temperature limits +/-		
	Humidity limit		
LED indicators / Display	Outlet led indicators	LED indicator per outlet	Optional
	6 digit /7 segment display	Nixie tube Display shows: current / voltage. Product information. Alarm information	
Network module features	Provides ATS information	Displays ATS serial number and working voltage, current power usage and alarm information	
	Audio sound alerts	Sounds when ATS is powered ON/OFF	
Management software	User/Administrator account settings	Set access permissions for multiple users over multiple ATS \ outlets	
	Outlet settings	Set thresholds per port or group of ports	
	Alarm notifications	Configure SMS and Email notifications when thresholds are exceeded	
	Control / monitor multiple ATSS from master ATS	Up to 3 slave ATS can be controlled and monitored via a single master ATS	
	Event log	Real time event record (displays exceeded thresholds, user logins and activities)	
Outlet features	Sequential power ON / OFF	Adjustable sequential power on intervals are 1~250 seconds, power off is 0.5 seconds	N3/N4 only
	Intelligent status holding	Power ATS settings are retained after a restart	N3/N4 only
	Surge protection	Circuit breaker added whole ATS	Optional

## Specifications continued

Feature	Description	Function / Parameter	Note
Monitoring abilities	Input voltage	Scale: 1V Accuracy: $\pm 1\% + 1$ digit Meter range: 90V~350V	
	Total current	Scale: 0.1A Accuracy: $\pm 1\% + 1$ digit Meter range:	
	Total kWh usage	Scale: 0.1 kWh Accuracy: 1 grade	
	Environment temperature	Resolution: 1°C Accuracy: $\pm 1\% + 1$ digit Meter range: -30°C ~ 100°C	Optional
	Environment humidity	Scale: 1% Accuracy: $\pm 1\% + 1$ digit Meter range: 1%~99%	Optional
	Smoke detector	Up to 25m <sup>2</sup> range	Optional
	Infrared sensor	16m range	Optional
	Water logging sensor	Water logging / drop monitor	Optional
	Door tamper sensor	5mm leeway	Optional
	Surge protection failure	Automated notification	Optional
Outlet / port & sensor alarms	Fuse failure	Sound alarm (buzzer) Remote alarm: Email, SMS, SNMP TRAP & management software	Optional
	Current threshold		Optional
	Temperature threshold		Optional
	Humidity threshold		Optional
	Smoke detector		Optional
	Door tamper sensor (open)	Remote alarm: Email, SMS, SNMP TRAP & management software	Optional
	Surge protection failure		Optional
	Infrared sensor		Optional
Hardware protection	Surge protection	Difference mode: $\pm 2$ kV Common mode: $\pm 2$ kV Flux: 3kA Discharge current: 5kA (max)	Optional
	Each port fused	Breaking capacity: 1500A Main line break protection Fuse range: 0.1A ~ 16A/32A (depending on model)	Optional
	Circuit breaker	Breaking capacity 6000A	Optional
Intelligent recognition	Outlets / Ports	Automatic outlet type & port number recognition	
	Environment sensors	Automatic sensor type and port recognition	
	Power thresholds	Auto detect when threshold are exceeded	
	Current and total power usage	Real time record of current and total power usage	
	Power factor	Real time power factor usage	
Sensor modules (option)	Up to 6 plug 'n' play sensor modules	Flexibility of sensor choice	Optional
Multiple ATS cascading	Up to 3 slave ATS can be controlled and monitored via a single master ATS	Connect via network cable (RJ485 ports)	