ARRAY 4 - 24kVA

Modular, scalable, network-level redundant power protection for multiple servers, mid-size datacenters and business-critical network applications

SANTAK®

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Overview

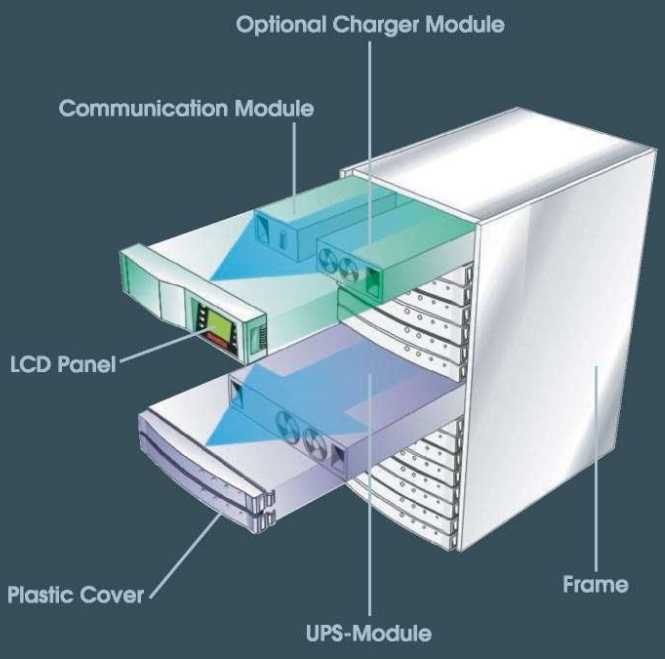
ARRAY is a scalable, modular, flexible solution that combines the highest level of reliability and availability in power protection with the lowest costs of ownership, it is uniquely designed to meet ever-changing commercial & industrial needs and enables users with an expandable level of redundancy through standard hot-swappable UPS-module.

ARRAY 4~24kVA, hereinafter called A UPS, is of single phase output and compatible with either three-phase or single phase mains input. A UPS is a scalable power protection system in the range of 4 to 24kVA, this gives you to protect your investment while enabling your system to grow. It becomes easy and simple for future power protection demands by adding UPS-module without further additional costs and space requirements.

Thanks to the proven on-line, double conversion with static bypass architecture, each 4kVA UPS-module is a completely independent UPS unit, this design offers the greatest degree of availability in power supply with processed power at all times. Designed with N+X parallel redundancy to provide a fault-tolerant network of power protection for highest system availability, A UPS system provides continuous, high-quality AC power to connected critical equipment, protecting them against any power disturbances due to blackouts, brownouts, surges, spikes, lightning and line noise interference.

A UPS system configuration guide

- ***LCD Panel*** *provides with communications and control for the system.*
- ***Communication Module*** *is to communicate with all UPS-modules and provides comprehensive information about the system to the user interface.*
- ***UPS-Module*** *is a completely independent unit of 4kVA UPS, consisting of rectifier, booster with PFC, charger, inverter and static bypass.*
- ***Charger Module*** *is an optional accessory to faster recharge the large capacity of the battery bank installed for extended backup time if necessary.*
- ***The Frame*** *has no active components and can hold a maximum of six UPS-modules.*



N+X Redundancy

This design enables customers with an expendable level of redundancy according to their needs. Users can opt for a greater degree of redundancy with up to N+5, simply by adding UPS-modules into the frame without taking valuable floor space. All UPS-modules are running in parallel, evenly sharing the connected load, not only to maximize redundancy, but also system availability.

Load	Number of UPS-module					
	1 unit	2 units	3 units	4 units	5 units	6 units
4kVA	N	N + 1	N + 2	N + 3	N + 4	N + 5
8kVA		N	N + 1	N + 2	N + 3	N + 4
12kVA			N	N + 1	N + 2	N + 3
16kVA				N	N + 1	N + 2
20kVA					N	N + 1
24kVA						N

Highest Flexibility

A UPS is scalable 4 to 24kVA, compatible with either three-phase or single phase mains input. Its modular design gives flexible solution to protect your initial investment in power protection while enabling your system to grow. It becomes easy and convenient to meet your future power demands, simply by adding UPS-module in increments of 4kVA. All modules are hot-swappable, this allows adding or removing modules while the system is running, without any interruption to the output.

Highest Performance

A UPS with true online double conversion architecture protects against all kinds of common power problems, offers scalable, flexible solution in power protection at the lowest total costs of ownership and higher operating efficiency.

The near to one input power factor reduces the input installation costs, high efficiency that means low heat emission is also good for our environment by using advanced transformer-less high frequency design.

Highest Reliability

With UPS-module containing unique paralleling control, featuring N+X parallel redundancy, A UPS is to provide a fault-tolerant power protection for maximum availability, eliminate downtime and enhance serviceability as well.

Highest Availability

The standard UPS-module is a completely independent UPS unit and adopts the proven double-conversion online technology with static bypass, all modules in the frame are hot-swappable. A UPS provides a perfect power protection against single point-of-failure and ensures maximum uptime and continuous availability.

Highest Simplicity

With its modularity, it is easy to install and operate the system which features a user-friendly LCD display and LED indicators on the front panel. Monitoring and control of the UPS system are just at your fingertips, LED indicators provide you with the UPS working status at a glance.

Longer Backup Time

This unique feature with generator-friendly meets most today's requirements for long backup time of high-quality AC power supply by either choosing in combination of most generators in the marketplace as a second power source, or installing appropriate number and the capacity of the battery groups specific to users' needs to realize for long time power protection, users may also opt for an extra Charger module to faster recharge the large capacity of the battery bank, thereby to maximize availability.

Manageability

The whole A UPS system can be managed locally and remotely by means of your computer networks from anywhere.

■ Local Management

The system is provided with a 5x20 character backlit LCD display and control panel, it puts all the control and monitoring of the UPS at user's fingertips.

■ Remote Management

A UPS is provided with two communications paths for remote monitoring, shutdown and management.

◆ WinPower shutdown and management

WinPower is the management and shutdown software that can be used with virtually all operating systems available in the marketplace, and is capable of reaching cross platform shutdown and monitoring.

◆ Intelligent Slot

A UPS is also provided with an Intelligent Slot for an optional WebPower card (WEB/SNMP agent) or a Dry Contacts.

- **WebPower card**

  The included CD contains of WebPower support for virtually all operating systems to peacefully shut down the computers over the network.

- **AS400 card**

  provides with a DB9 dry-contact interface

- **Environmental sensor (option)**

  for use with WebPower

Technical specifications

General

Product	ARRAY, A UPS
Power Capacity	4 ~ 24kVA / 2.8 ~ 16.8kW
Topology	True online, double-conversion
Construction	Modular (Standard UPS-module of 4kVA)
Redundancy Capability	Network-level N+X redundancy
Bypass	Automatic on overload or UPS failure, manual maintenance switch
Input & output connections	Hardwired
Standards	EMS: IEC 61000-4-2 Level 4 (ESD) IEC 61000-4-3 Level 3 (RS) IEC 61000-4-4 Level 4 (EFT) IEC 61000-4-5 Level 4 (Surge) EMI: IEC 62040-2
Operating Temperature	0 ~ 40 ℃
Relative Humidity	20% ~ 90%, non-condensing

Input

Configuration	3-phase (3φ4w + G) or single phase (1φ2w + G)
Input voltage range	204 ~ 520VAC (3-phase) or 118 ~ 300VAC (single)
Input Frequency	46 ~ 54/56~64 Hz
Input Power Factor	≥ 0.98

Output

Configuration	Single phase (1φ2w + G)
Nominal Voltage	220VAC
Output Voltage Regulation	±2%
Output Frequency	50/60 Hz
Output Frequency Regulation	±4Hz online, ±0.5% on battery
Output Power Factor	0.7
Overload Capability	110% ~ 130% for 30 sec, >130% for 2 sec
Load Crest Ratio	3:1

Monitoring and Control

LED Indicators	UPS status: Normal, On battery, Bypass, Fault
LCD Display and Controls	5 x 20 character backlit LCD display, Programmable
Communications Port	RS232, RS-485, Intelligent slot

Mechanical

Dimensions of System Frame	442 x 700 x 965 mm (W x D x H)
Weight of System Frame	75 kg
Weight of UPS-module	15 kg each
Dimensions of Battery Cabinet	442 x 700 x 965 mm (W x D x H)
Weight of Battery Cabinet	65 kg w/o batteries

*Specifications are subject to change without notice

SANTAK®

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3 Years Warranty