

# ablereX TS

## Three-Phase On-Line UPS

The AblereX TS Parallel Redundancy Online UPS features True Double Conversion Design for total load isolation, Dual Input for optimal load protection and 3-level intelligent charging mode, is the perfect solution for data centre, and mission critical equipment and computer loads.

- 3 Level IGBT Technology
- Up to 6 units Power Scalable and Parallel Redundancy
- Common Battery Bank or Individual Battery Bank Configurable
- Intelligent 3-level Charging Modes
- True Online Technology for Maximum Power Protection
- Power Peak Shaving and Load Levelling
- Build-in Energy Storage System (ESS) Function
- Up to 96% Efficiency in Double Conversion Mode
- Near Unity Input Power Factor
- Low Input Harmonic Distortion, THDi <3%
- Full Load Rated No Break Dual Solid-State Static Switch
- Intelligent Battery Management



# CRITICAL POWER PROTECTION

The Ablerex TS is a mid-size, three-phase, new generation of transformer-less UPS that delivers power protection for the increasing loads in today's data centers.

The standalone three-phase UPS includes a true online double conversion, a power distribution unit, a manual Maintenance bypass, a static thyristor bypass, intelligent battery management and space for internal batteries (11kVA to 40kVA), fulfilling today's requirement for:

- System availability
- Solution flexibility
- Parallel Redundancy



## Ablerex TS

- Single unit capacities from 11kVA to 60kVA
- Capacity up to 360kVA, 6 units in parallel
- High efficiency and minimum cost of ownership
- Low input harmonic distortion: THDi <3%
- Near to unity input power of 0.99
- Up to 96% Efficiency in Double Conversion Mode
- Fully rated output power
- Full front access maximizes system serviceability
- Transformerless design
- Fully DSP (Digital Signal Processing) controlled

## High Availability

With a transformerless design and Energy Saving Storage (ESS) technology, the Ablerex TS UPS is available in various configurations with integrated enclosures and external battery cabinets, ranging from 11kVA to 60kVA to suit your requirements.

## Flexible Battery Configuration

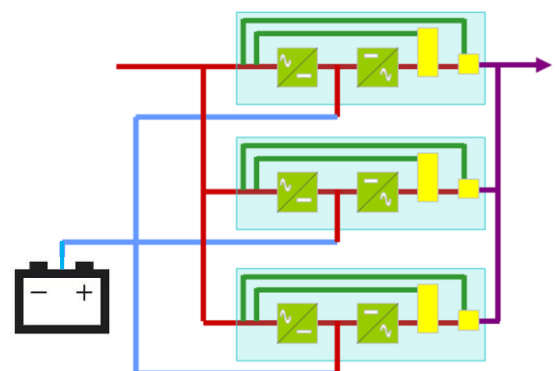
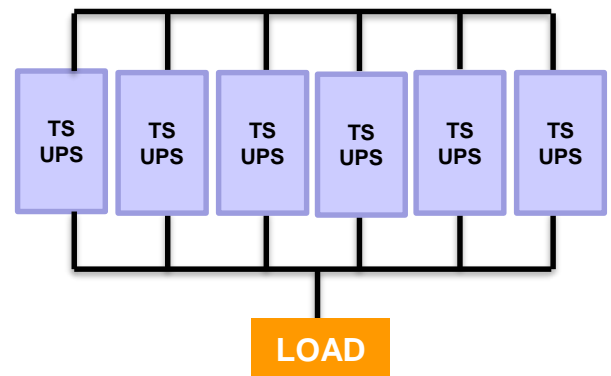
When operating in parallel configuration, the Ablerex TS UPS can be configured with common battery bank or individual battery bank to achieve the required backup time autonomy, providing highest load availability and reliability with cost effectiveness.

The number of battery block per string can be easily adjusted to achieve optimal sizing of battery capacity and minimal investment.

## Advanced Interface

The Ablerex TS UPS is equipped with an advanced LCD Coloured Touch Screen interface offering direct control and access to all parameters and system management with ease.

Parallel configuration for power scalability or redundancy



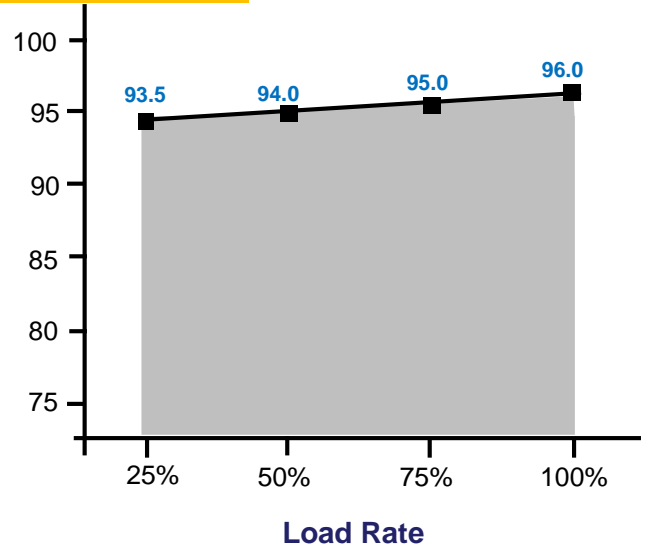
# ENERGY EFFICIENT SOLUTION

Power Performance by providing a clean rectifier connection to the utility power. It meets today's industry standards for energy saving, low current harmonic pollution to the utility power and achieves up to 0.99 at Input Power Factor as well as <3% Current THDi.

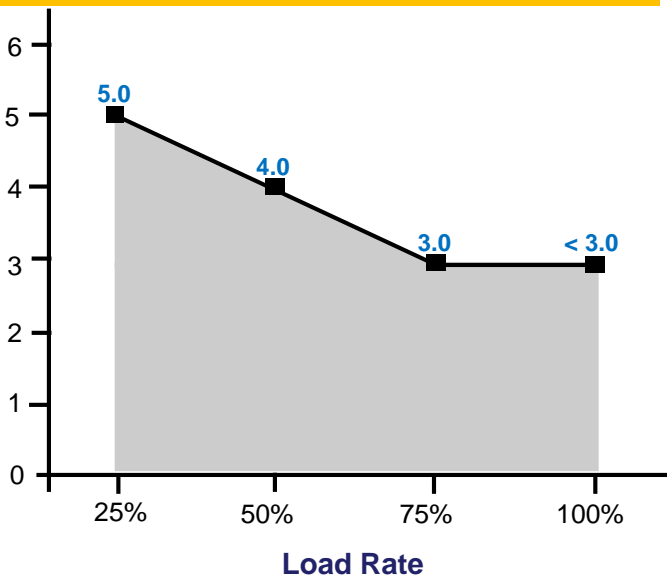
## High Efficiency from Low Load to Full Load

The Ablerex TS delivers high efficiency at partial and full load (up to 96% in double conversion online mode), dramatically reducing operating cost of the system, extending components service life and increasing overall power performance.

AC – AC efficiency



Input Current Total Harmonic Distortion (THDi)



## Low input current total harmonic distortion (THDi)

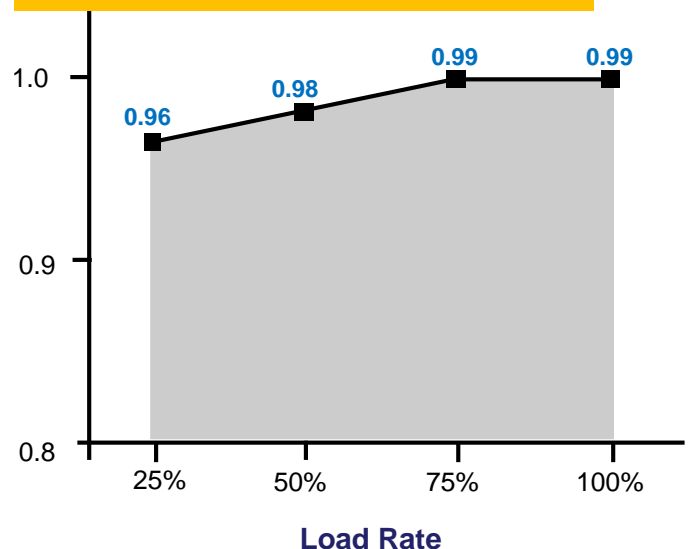
The Ablerex TS manage the input current total harmonic distortion (THDi) at a low level (3% at 100% load), eliminating harmonic distortion at the input of the system, providing greater operation reliability and extending the service life of UPS.

## Near-to-unity input power factor from Low Load to Full Load

The Ablerex TS input power factor is 0.99 even with partial loads, thus reducing the input installation cost by using smaller size input cables, fuses and Isolation Transformers.

The Ablerex TS can supply load from 0.9 leading to 0.9 lagging without derating.

Input Power Factor Versus Load



# Technical Specification

Model		TS11K	TS20K	TS30K	TS40K	TS60K	TS80K
INPUT	Voltage / Phase	400V / 3 Phase + N					
	Voltage Tolerance	+/- 20%					
	Frequency	45~65Hz					
	Power Factor	≥ 0.99					
	Total Harmonic Distortion Current (THDi)	< 3%					
Bypass	Voltage / Phase	380V/400V/415V / 3 Phase + N					
	Voltage Tolerance	+/- 10%					
	Frequency	50/60Hz					
	Frequency Tolerance	+/- 3Hz					
Output	Capacity	11kVA/ 11kW	20kVA/ 20kW	30kVA/ 30kW	40kVA/ 40kW	60kVA/ 60kW	80kVA/ 80kW
	Voltage / Phase	380V/400V/415V / 3 Phase + N					
	Voltage Tolerance	+/- 1% (Static Load)					
	Power Factor	1.0					
	Frequency	50/60Hz					
	Frequency Tolerance	+/- 0.01% (free running)					
	Crest Factor	3:1					
	Voltage Harmonic Distortion	<1% with linear load; <3% with distorting load					
Protection	Overload Capacity	110% for 60 minutes, 125% for 10 minutes, 150% for 1 minute					
Efficiency at 100% Load	VFI Mode	≥95%				≥96%	
	ECO Mode	≥98%					
	Backup Mode	≥95%					
Battery	Number of Batteries	32~40pcs configurable					
	Max. Charging Current	3.5A	7A	10A	13A	20A	26A
	Common Battery for Parallel Configuration	Yes					
Physical	Parallel	Up to 6 units					
	Dimension (W × D × H) mm	440 × 840 × 1390				600 × 827 × 1300	
	Weight (kg)	113kg	115kg	130kg	132kg	200kg	230kg
	Protection Index	IP21					
Environmental	Operating Temperature	0~40°C					
	Operating Humidity	0~95% (without condensation)					
	Heat Dissipation	582W	1164W	1414W	1885W	2827W	3750W
Communication Interface	Standard	RS232, USB, EPO					
	Optional	SNMP Card, RS-485 Modbus Card, 6× Input Dry Contact, 6× Output Dry Contact					
Standards and Certifications	Safety	IEC/EN 62040-1					
	EMC	IEC/EN 62040-2					
	Markings	CE					

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