

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 pefect 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.

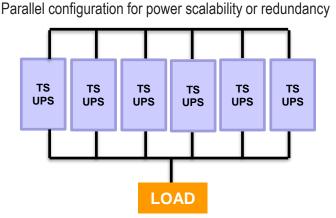
#### **Flexible Battery Configuration**

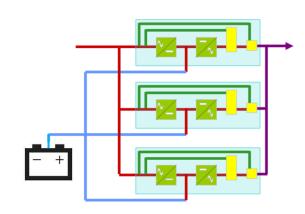
When operating in parallel configuration, the Ablerex TS UPS can be configured with common battery bank or individual battery bank to achieve the required backup time autonomy, providing highest load availability and reliability with cost effectiveness.

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.





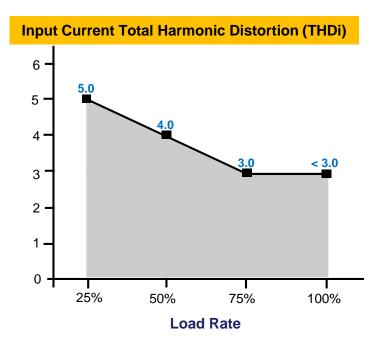


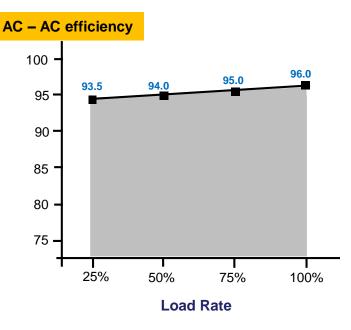
## **ENERGY EFFICIENT SOLUTION**

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 THD.

# 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.





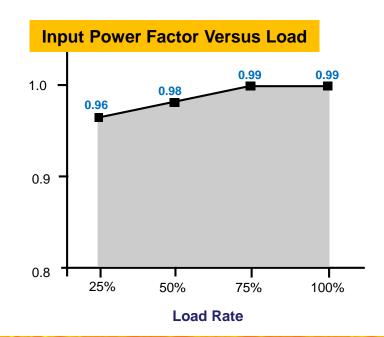
#### Low input current total harmonic distortion (THDi)

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.



<table-container>NeededTatikTatikTatikTatikTatikTatikTatikTatikTatikTatikName</table-container>	Technical Specification								
NPUTValue of loaranooImage: Second Se	Model		TS11K	TS20K	TS30K	TS40K	TS60K	TS80K	
Impute Power Factorimpute Power Factorimpute Pow	INPUT	Voltage / Phase	380V/400V/415V / 3 Phase + N						
Import Power FactorImport ImportImport ImportImport ImportTala Harmonic Distortion Ournent (THED)ImportImportImportMage ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportVoltage ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportPredetorImportImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImportImportFrequency ToleranceImportImportImport <t< td=""><td>Voltage Tolerance</td><td colspan="6">+/- 15%</td></t<>		Voltage Tolerance	+/- 15%						
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Current (THDD)CURRENT (THDD)Bound (THDD)CURRENT (THDD)Voltage PhaseCURRENT (CURRENT (C		Power Factor	≧ 0.99						
Frequency11% /r20% /r30% /r40% /r50% /rFrequency Tolerance11% /r20% /r30% /r40% /r50% /rVoltage / Phase11% /r20% /r30% /r40% /r50% /rVoltage Tolerance11% /r20% /r30% /r40% /r50% /rPower Factor			< 3%						
PrequencyFrequency ToleranceImage: Second Se	Bypass	Voltage / Phase	380V/400V/415V / 3 Phase + N						
FrequencyFrequency ToleranceFrequency Tolerance11kV/V20kV/V30k/V40k/V60k/V/V80kV/VVoltage / Phase20kV/V30k/V40k/V60k/V80kV/VVoltage / Phase20kV/V30k/V40k/V60k/V80k/V/VVoltage / Phase20kV/V30k/V40k/V60k/V80k/V/VPower Factor		Voltage Tolerance	+/- 10%						
CutputCapacity11kVA 11kW20kVA 20kW30kVA 30kW40kVA 40kW60kVA 60kVA80kVA/ 80kVAVollage / Phase		Frequency	50/60Hz						
<table-container>CapacityCapacityOtkOtkOtkOtkOtkVoltage / Phase<!--</td--><td>Frequency Tolerance</td><td colspan="6">+/- 3Hz</td></table-container>		Frequency Tolerance	+/- 3Hz						
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Power FactorI FrequencyFrequencyI Frequency ToleranceFrequency ToleranceI <br< td=""><td>Voltage / Phase</td><td colspan="6">380V/400V/415V / 3 Phase + N</td></br<>		Voltage / Phase	380V/400V/415V / 3 Phase + N						
Frequency Frequency ToleranceFrequency ToleranceSolutionCrest Factor0		Voltage Tolerance	+/- 1% (Static Load)						
Frequency Tolerance+/- 0.01% (Ferunity)Crest FactorVoltage Harmonic DistortionProtectionOverload CapacityImage: State S		Power Factor	1.0						
Intermediation in the second s		Frequency	50/60Hz						
Voltage Harmonic DistortionProtectionOverload CapacityFfliciency at 100% LoadCFI ModeFfliciency at 100% LoadCFI ModeCFI ModeCFI ModeCFI ModeBackup Mode3.5A7A10A13A20A26AMumber of Batteries3.5A7A10A13A20A26AMax. Charging Current3.5A7A10A13A20A26AParallel Configuration3.5A7A10A13A20A26AProtection Index113Kg115Kg13Kg13Kg20Kg23KgPortection Index113Kg115Kg13Kg13Kg20Kg23KgPortection Index113Kg116Kg141Kg188Kg28Kg37KgPortection Index55Kg15Kg15Kg15Kg15KgPortection Index55Kg15Kg15Kg15Kg15KgPortection Index55Kg15Kg15Kg15Kg15KgPortection Index55Kg15Kg15Kg15Kg15KgPortection Index55Kg15Kg15Kg<		Frequency Tolerance	+/- 0.01% (free running)						
ProtectionOverload CapacityOverload		Crest Factor	3:1						
Fifticiancy at 100% LoadVFI ModeImage: Second S		Voltage Harmonic Distortion	<1% with linear load; <3% with distorting load						
Final of the term of term of the term of t	Protection	Overload Capacity	110% for 60 minutes, 125% for 10 minutes, 150% for 1 minute						
100% LoadECO ModeCEC ModeBackup ModeCEC ModeCEC ModeCEC ModeCEC ModeBackup ModeCEC ModeCEC Sec		VFI Mode	≥95% ≥96%						
Ideal Ideal<		ECO Mode	≥98%						
BatteryMax. Charging Current3.5A7A10A13A20A26ACommon Battery for Parallel ConfigurationYesParallel ConfigurationCommon Battery for Parallel ConfigurationCommon Battery for Parallel ConfigurationCommon Battery for ParallelSecond Second		Backup Mode	≥95%						
Bartery Parallel ConfigurationCommon Battery for Parallel Configurat	Battery	Number of Batteries	32~40pcs configurable						
Parallel ConfigurationImage: Second Seco		Max. Charging Current	3.5A	7A	10A	13A	20A	26A	
PhysicalDimension (W × D × H) mm $440 \times 840 \times 1390$ $600 \times 7 \times 1300$ Weight (kg)113kg115kg130kg200kg230kgProtection Index $($			Yes						
PhysicalImage: Normal Standards and Contract Standardstand Standar	Physical	Parallel	Up to 6 units						
Weight (kg)113kg115kg130kg132kg200kg230kgProtection IndexAperating TemperatureOperating Humidity <td< td=""><td>Dimension (W <math display="inline">\times</math> D <math display="inline">\times</math> H) mm</td><td colspan="3"><math display="block">440\times840\times1390</math></td><td colspan="2"><math display="block">600\times827\times1300</math></td></td<>		Dimension (W $\times$ D $\times$ H) mm	$440\times840\times1390$			$600\times827\times1300$			
Appending TemperatureOperating TemperatureOperating TemperatureOperating TemperatureOperating Humidity6SecondSeco		Weight (kg)	113kg	115kg	130kg	132kg	200kg	230kg	
EnvironmentalOperating Humidity $95\%$ (without condensation)Heat Dissipation582W1164W1414W1885W2827W3750WCommunication InterfaceStandardStandardSNMP CardRS232, USB, EPOVVStandards and CertificationsSafetySSSSSSSSBandards and CertificationsEMCSSSSSSSSSStandards and CertificationsEMCSSS		Protection Index	IP21						
Heat Dissipation582W1164W1414W1885W2827W3750WCommunication InterfaceStandardStandardSNMP Card, RS-485 MovementRS232, USB, EPOStandardStandards and CertificationsSafetySolutionSolutionIEC/EN 62040-1Standards 2000-2	Environmental	Operating Temperature	0~40°C						
Standards and Certifications Sandard SNMP Card, RS-485 Modbus Card, 6× Input Dry Contact, 6× Output Dry Contact   Bafety EMC IEC/EN 62040-1		Operating Humidity	0~95% (without condensation)						
Communication   Image: Communication   Sector (Communication)     Interface   Optional   SNMP Card, RS-485 Modbus Card, 6× Input Dry Contact, 6× Output Dry Contact     Standards and Certifications   Safety   IEC/EN 62040-1		Heat Dissipation	582W	1164W	1414W	1885W	2827W	3750W	
Interface     Optional     SNMP Card, RS-485 Modbus Card, 6× Input Dry Contact, 6× Output Dry Contact       Standards and Certifications     Safety     IEC/EN 62040-1		Standard	RS232, USB, EPO						
Standards and Certifications EMC IEC/EN 62040-2		Optional	SNMP Card, RS-485 Modbus Card, 6× Input Dry Contact, 6× Output Dry Contact						
Certifications EMC IEC/EN 62040-2		Safety	IEC/EN 62040-1						
		EMC		IEC/EN 62040-2					
		Markings	CE						

Designed, Engineered and Proudly Made In Taiwan:

