

PT Series

10KVA~80KVA

3 Phase In / 3 Phase Out



About the PT Series

Perpetual Power presents the PT Series Online UPS-a high-performance, fully digital uninterruptible power supply featuring advanced DSP (Digital Signal Processing) control technology. The system utilizes an online double-conversion topology to ensure maximum power reliability. Its DC/AC conversion is based on SPWM (Sinusoidal Pulse Width Modulation) technology, utilizing high-efficiency IGBT power modules and an output isolation transformer for enhanced performance and protection.

Why Choose the PT Series?

<u>Double Benchmark Designed Power System</u> Engineered for superior performance and power stability.	<u>High Reliability and Safety Protection</u> Ensures consistent, safe operation across all conditions.	<u>Excellent Generator Compatibility</u> Seamless integration with various generator types	<u>ABM (Advanced Battery Management) Technology</u> Optimizes battery performance and life.	<u>Strong Load Capacity</u> Zero transfer time during output ensures uninterrupted power delivery.
<u>3-Phase Input / 3-Phase Output</u> Supports industrial-grade power applications.	<u>Pluggable Power Module Design</u> Front-access design simplifies maintenance and reduces MTTR; supports parallel redundancy for high availability.	<u>Parallel Operation with Common Battery Bank</u> Increases flexibility and system scalability.	<u>Power Walk-In Function</u> Smooth load transfer, minimizing electrical shock to power sources.	<u>Dual Mains Inputs</u> Increases power supply flexibility and redundancy.
<u>Built-in Switching System</u> Includes Mains Input, Bypass Input, Output, and Maintenance Bypass Switches for safe and efficient operation.	<u>Flexible Battery Configuration</u> Adjustable charging current to match different battery setups.	<u>Output Power Factor = 1.0</u> Delivers full rated power to connected equipment.	<u>Active Power Factor Correction (PFC)</u> On all input phases to reduce harmonic distortion.	<u>Built-in 7" Touch LCD Display</u> Provides intuitive access to real-time system data and control.
<u>Emergency Power Off (EPO) Function</u> Immediate shutdown capability for safety.	<u>Frequency Converter Mode</u> Supports both 50Hz and 60Hz output as required.	<u>Generator Compatible</u> Operates reliably with generator power sources.		

Benchmark Design

The PT Series is engineered as a performance benchmark, designed to adapt seamlessly to any environment. It features an intuitive LCD/LED display, multifunctional key operation, and a user-friendly HMI interface. Advanced multi-platform communication capabilities are integrated, along with strategically placed air vents on the front and side panels for optimal cooling and ventilation.



Complete system superior by Microcontroller



Display LCD+LED



HMI- Technology

Smart Air Vent UPS

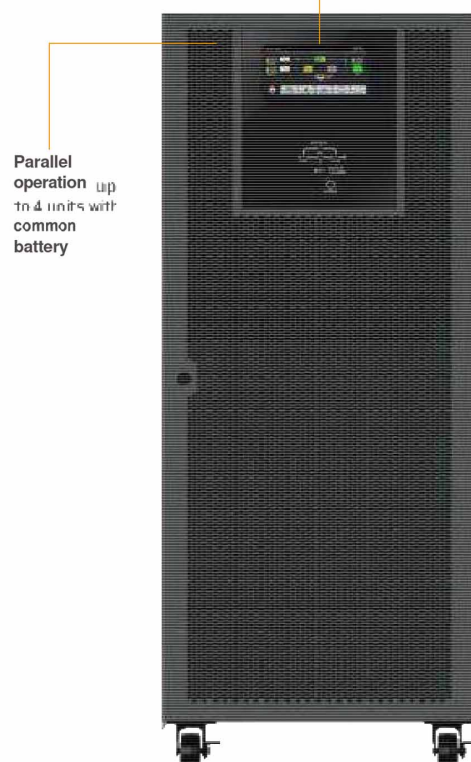
Tremendous Benefits

There are numerous advantages to deploying a Perpetual Power UPS. First and foremost, it protects against utility power failures and helps safeguard sensitive equipment—such as computers and network devices—from damage caused by power disturbances, which are increasingly common. The PT Series offers a cost-effective, high-quality solution, combining reliability with exceptional value.

7" touch LCD screen

- Dynamic password optimizes service performance
- Adjustable charging current via LCD

Plug gable power module for Maintenance by pass switch effortless maintenance



Front View



100K/120K Front Door Open View



180K/200K Front Door Open View

Parallel operation up to 4 units with common battery

Front access design for terminal wiring

Mains input switch/bypass switch/ Output switch

Pluggable power module for effortless maintenance

Features

DSP technology guarantees high reliability

DSP and MCU dual chips to secure the product reliability.

Output power factor 1.0

For critical applications, this 3-phase online UPS with output power factor 1.0 ensures higher efficiency and advanced performance.

Adapting the latest Silicon carbide diodes to enhance the system efficiency

Through adapting the latest Silicon carbide diodes, no matter it's in AC mode and battery mode, the efficiency is higher than 96%.

Dual Inputs

PT33 series is also available for optional dual inputs to support various inputs to have flexibility for system configuration

Very powerful charger

Adapting the charger rating equals to 30% of UPS capacity on 10/20 Kva. Charger rating is Also 20% of UPS capacity for 30 Kva and above models

Adjustable charging

User can adjust charging current via LCD setting based on various battery configurations.

**Parallel up to 6 units with
common battery pack**

Supports maximum 6 units in parallel with common battery pack for the parallel system.

Voice warning/error code notice

In built the speaker to have human voice for the warning /error codes notice instead of traditional beeps.

High over load capability

Supporting 110% overload capacity for 60 min and up to 1 min overload condition at 150% load.

**Adjustable battery
design**

The number of connected batteries can be adjusted flexibly based on different power demands.

**Dynamic password feature
optimizes**

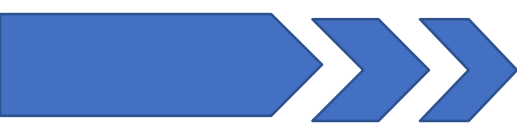
This dynamic password is automatically generated from our exclusive utility tool. Each time when it is required to change service-related settings, this utility tool would generate an unique password on time basis. It secures UPS from unexpected operation due to

Power walk-in function

The PT33 Series supports an adjustable power walk-in feature, which allows gradual load transfer to the UPS over a defined period. This helps optimize generator sizing and reduces the stress on the AC source—especially beneficial when using multiple paralleled UPS systems during AC grid recovery.

Standard configure with Output Isolation Transformer: Optional





PT Series 10KVA – 80KVA 3ϕ in / 3ϕ out Online UPS Selection Guide

MODEL		PT3310ITE*	PT3315ITE	PT3320ITE*	PT3330ITE*	PT3340ITE	PT3360ETE	PT3380ETE
PHASE		3-phase in/3-phase out						
CAPACITY		10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KV/40KW	60KVA/60KW	80KVA/80KW
PARALLEL CAPABILITY		Up to 6 units in parallel						
INPUT								
Nominal Voltage		3x380/400/415VAC(3Ph+N)						
Voltage Range		-30%~+20%						
Frequency Range		40~70Hz						
Power Factor		≥0.99@100%Load						
Harmonic Distortion(THDi)		<3% at full linear load						
OUTPUT								
Output Voltage		3x360*/380/400/415VAC(3Ph+N)						
AC Voltage Regulation (Batt. Mode)		±1%						
Frequency Range (Synchronized Range)		46~54Hzor56~64Hz						
Frequency Range (Batt. Mode)		50/60Hz±1%						
Current Crest Ratio		3:1(max.)						
Harmonic Distortion		≤1%THD(Linear Load);≤3%THD(Non-linear Load)						
Transfer Time	AC Mode to Batt. Mode	Zero						
	Inverter to Bypass	Zero						
Wave form (Batt. Mode)		Pure Sine wave						
Over load Capability		100-110%for60min, 111-125%for10min, 126%~150%for1min;>150%or400ms						
BYPASS								
Nominal Voltage		3x380/400/415VAC(3Ph+N)						
Voltage Range		-30%~+20%(Adjustable)						
Frequency Range(Synchronized Range)		46~54Hzor56~64Hz						
Overload Capability		>130%1minute(default) Continuously working until breaker protection(optional)						
EFFICIENCY								
AC Mode		96.0%						
ECO Mode		99.0%						
Battery Mode		96.0%						
BATTERY								
Standard Model	Battery Type	12V/9Ah	12V/9Ah	12V/9Ah	12V/7Ah	12V/9Ah	N/A	
	Numbers	(10+10)pcs	(16+16)pcs	(16+16)pcs	(16+16)pcsx2strings			
	Typical Recharge Time	9 hours recover to 90% capacity						
	Charging Current(max.)	1A~12A(Adjustable)				1A~16A (Adjustable)		
	Charging Voltage	+/-136.5VDC ±10%	+/-218VDC±10%					
Long-run Model	Battery Type	Depending on the applications						
	Numbers	+/-10pcs	+/-16pcs~+/-20pcs(Adjustable)					
	Charging Current(max.)	1A~12A(Adjustable)				1A~16A (Adjustable)	2A~24A (Adjustable)	2A~32A (Adjustable)
	Charging Voltage	+/-136.5VDC± 10%	+/-13.65VxN(N=16~20)					
INDICATORS								
LCD Panel		UPS status, Load level, Battery level, Input/Output voltage ,Discharge timer, and Fault conditions						
PHYSICAL								
Standard Model	Dimension, D x W x H (mm)	630x250x826			815x300x1000		N/A	
	Net Weight (kgs)	124	139		225	250		
Long-run Model	Dimension,D x W x H (mm)	630x250x826			815x300x1000		790x360x1010	
	Net Weight (kgs)	28	43		60	67	108	113
ENVIRONMENT								
Operation Temperature		0-40°C						
Operation Humidity		<95%andnon-condensing						
Altitude**		0~1500mat full load						
Noise Level		Less than 60dB@1Meter			Less than 63dB@1Meter		Less than 65dB@1Meter	
MANAGEMENT								
Smart RS-232/USB		Supports Windows ² 2000/2003/XP/Vista/2008,Windows ² 7/8/10,LinuxandMAC						
Optional SNMP		Power management from SNMP manager and webbrowser						

*If output voltage is set as 3x360VAC, the output power of the unit will be de-rated to 90%.

**If the UPS is installed or used in a place where the altitude is higher than maximum height, the output power will be de rated 1% per 100m.Product specifications are subject to change without further notice.

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Applications



Our Clients



CENTRAL POLYTECHNIC COLLEGE



CUSAT



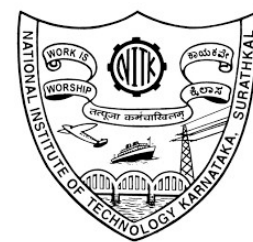
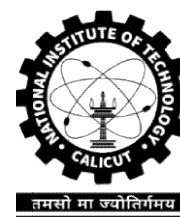
Government Engineering College



KSBCDC
KERALA STATE BACKWARD CLASSES DEVELOPMENT CORPORATION
(A Government of Kerala undertaking)

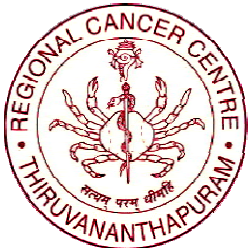


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