

SUPREME PRO UPS

FOR DATA CENTERS & COMPUTER ROOMS



EXCEPTIONAL PERFORMANCE

- Unity power factor and low input distortion
- ECO Mode for energy saving
- DSP-controlled technology
- Superior overload capability
- Efficiency up to 96%
- Low input current total harmonic distortion

HIGH POWER DENSITY

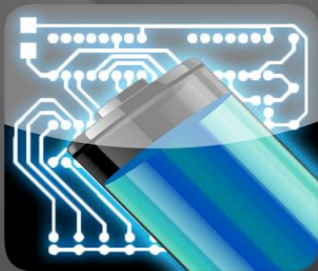
- Online double conversion three phase UPS
- LBS port for 2N system configuration
- Parallel redundancy up to 4 units
- Output power factor at 1
- Up to 600KVA per system



Recommended By Most Industry Users



SUPREME PRO UPS is a three-phase four-wire online double conversion UPS that provides reliable and stable sine-wave power to all your electronics equipment. It is designed with the latest 3 Level IGBT technology that gives an output power factor of 1. The efficiency of the entire UPS system can reach up to 96% in double conversion online mode. With its outstanding features, the UPS not only provides safe, reliable and uninterrupted power to your sensitive equipment at all times, but also produces better power efficiency resulting in lesser operating cost.



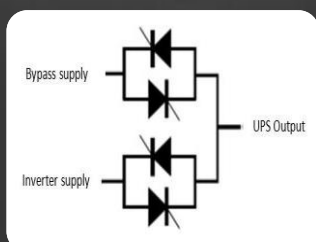
Smart Charge Current Adjustment

SUPREME PRO UPS comes with advanced three-stage charging method. The first stage consists of constant current charging where the UPS performs fast charging to reach 90% of the electricity. The second phase consists of pulse charging where the battery will be brought to fully charged state. The third stage is to maintain constant pressure to ensure no loss of power. This method enhances and extends the life of the battery.



Automatic Fan Speed Control

The speed of the fan varies depending on the heat-sink temperature and the load percentage. A typical UPS system equipped with fixed speed fans operate at a constant high speed thereby consuming the maximum amount of power. In cases where the load is not maximized, the required air circulation within the UPS is less and a lower air circulation rate can be provided at a much lower fan speed, thus a considerable amount of fan electrical energy can be conserved.



Dual Feed AC Input Sources

Supreme PRO UPS accepts dual input feeds and auto switch-over should one feed fail. This design enhances availability and provide a double layer of power availability for all mission critical applications.



- ✓ **Parallel up to max. 4 units**
- ✓ **Load Sharing**
- ✓ **More than 1 Unit can be set at Redundancy**

N+X Parallel Redundancy

N+X, also called parallel redundancy, is a safeguard to ensure that an uninterruptible power supply (UPS) system is always available. N+X stands for the *number* of UPS modules that are required to handle an adequate supply of power for essential connected systems, plus one or more modules.

If an enterprise data center uses a single large UPS, and if that module fails, systems will be disrupted. Using an N+X scheme, multiple small UPS modules and batteries are integrated together. During normal operations, the load is shared equally across all modules, which behave as if they were a single large UPS device.

If a single module fails or needs to be taken offline for service, the UPS system will still be able to provide an adequate supply of power because it's already been configured with one or more extra module. For example, when using a N+1 redundancy, the UPS modules should be sized so that the total anticipated load can be carried by three modules. The benefits of N+1 diminish after that point.

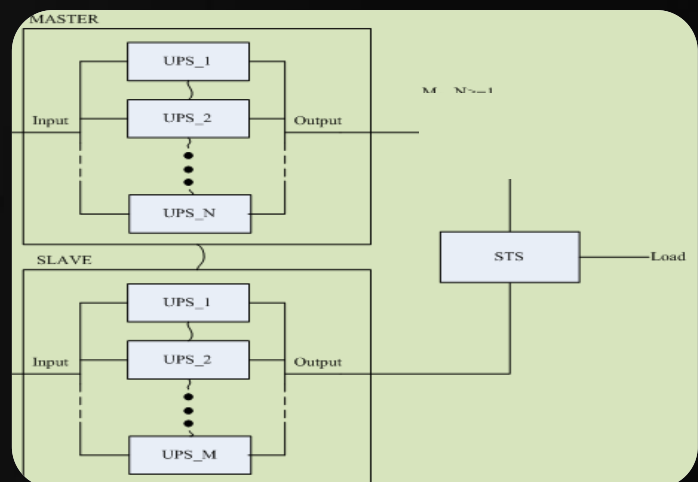
ECO (Energy Saving) Mode

ECO mode is a method of operating the UPS at reduced power protection in order to obtain improved electrical efficiency and save energy. The benefit of ECO mode is that the efficiency of the bypass path is typically between 98.0% and 99%, compared to the base UPS efficiency of 94% to 97%. This means there is a pickup in UPS efficiency of between 2-5% in UPS efficiency when ECO-mode is used. ECO mode represents a potential way to save energy in data centers and other UPS applications.



Load Bus Synchronisation (LBS)

The function of LBS is to keep the output of two independent UPS systems (single unit or multiple unit) in synchronization even when the two systems are operating on different modes (bypass/inverter) or on batteries. It is usually used with an STS (Static Transfer Switch) connected to the critical load to achieve Dual Bus configuration.



Dry Relay Card



SNMP Card

Versatile Communication Interfaces

Besides having the usual RS232 interface, the UPS can be monitored and controlled via RS485, Dry Contact or Ethernet (SNMP) card. This unique solution allows you to conveniently monitor and manage your UPS with a standard Web browser, while simultaneously providing graceful shutdown for multiple computer systems over the network.

PowerHub Supreme Pro 150kW to 600kW UPS Technical Specifications

MODEL		Supreme Pro 150K-TTME Supreme Pro 150K-TTMS	Supreme Pro 200K-TTME Supreme Pro 200K-TTMS	Supreme Pro 250K-TTME Supreme Pro 250K-TTMS	Supreme Pro 300K-TTME Supreme Pro 300K-TTMS	Supreme Pro 400K-TTME Supreme Pro 400K-TTMS	Supreme Pro 500K-TTME Supreme Pro 500K-TTMS	Supreme Pro 600K-TTME Supreme Pro 600K-TTMS
Capacity (VA/Watts)		150k / 150k	200k / 200k	250k / 250k	300k / 300k	400k / 400k	500k / 500k	600k / 600k
INPUT								
Nominal voltage		380/400/415Vac, (3Ph+N+PE)						
Operating voltage range		138~305Vac for 40% Load; 305~485Vac for 100% Load;						
Operating frequency range		40Hz-70Hz						
Power factor		≥0.99						
Harmonic distortion (THDi)		3.0% (100% linear load)						
Bypass voltage range		Max. voltage:220V: +25%(optional +10%,+15%,+20%) ; 230V: +20%(optional +10%,+15%) ;240V: +15%(optional +10%) Min. voltage: -45% (optional-10%, -20%,-30%)						
Bypass Frequency range		Frequency protection range: ±10%						
Generator input		Support						
OUTPUT								
Rated voltage		380/400/415Vac, (3Ph+N+PE)						
Power factor		1						
Voltage regulation		±1%						
Output frequency	Line Mode	±1%/±2%/±4%/±5%/±10% of the rated frequency(optional)						
	Bat. Mode	(50/60±0.1%)Hz						
Crest factor		3:1						
Harmonic distortion (THD)		≤1% with linear load , ≤3% with non linear load ≤4% with non linear load						
Efficiency		maximum 96%						
BATTERY								
Battery voltage		Optional Voltage: ±180V/±192V/±204V/±216V/±228V/±240/±252/±264/±276/±288/±300Vdc (30/32/34/36/38/40/42/44/ 46/48/50pcs optional); (36 pcs default, 36 to 50 pcs output power factor 1.0; 32~34 pcs output power factor 0.9; 30 pcs output power factor 0.8)						
Charge Current(A)	UPS cabinet	60A (Max.)	80A (Max.)	100A (Max.)	100A (Max.)	140A (Max.)	180A (Max.)	200A (Max.)
SYSTEM FEATURES								
Transfer time		Utility to Battery : 0ms; Utility to bypass: 0ms						
Overload	Line Mode	110% overload for 60 min; 125% overload for 10 min; 150% overload for 1 min						
	Bypass Mode	135% overload for long term; >1000% overload for 100 ms						
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately						
Low battery voltage		Alarm and Switch off						
Self-diagnostics		Upon Power On and Software Control						
EPO(optional)		Shut down UPS immediately						
Battery		Advanced Battery Management						
Noise suppression		Complies with EN62040-3						
Audible & Visual alarms		Line Failure, Battery Low, Overload, System Fault						
Status LED & LCD display		Line Mode, Bypass Mode, Battery Low, Battery Bad, Overload & UPS Fault						
Reading on the LCD display		Input, Output, Battery, Command Setting, Maintenance						
Communication interface		CAN, RS485,NET, Parallel, Dry contact port, Relay card(optional), SNMP card(optional),Battery temperature sensor(optional)						
ENVIRONMENTAL								
Operating temperature		0°C~40°C						
Storage temperature		-25°C~55°C						
Humidity range		0~95% (non condensing)						
Altitude		< 1500m						
Noise level(from 1M distance)		<65dB	<63dB	<65dB	<70dB	<70dB	<73dB	<73dB
PHYSICAL								
Dimension WxD×H (mm)	UPS cabinet(TTME)	600×850×1200	600×850×1600			600×850×2000	1200x850x2000	
	UPS cabinet(TTMS)							
STANDARDS								
Safety		IEC/EN62040-1,IEC/EN60950-1						
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8						
Performance		IEC62040-3						

*TTME - UPS Cabinet with Maintenance MCCB only
*TTMS - UPS with Maintenance Bypass, Maintenance and Output MCCB
Specifications subject to change without prior notice.