PowerHub

# SUPREME PRO UPS

## FOR DATA CENTERS & COMPUTER ROOMS


### EXCEPTIONAL PERFORMANCE

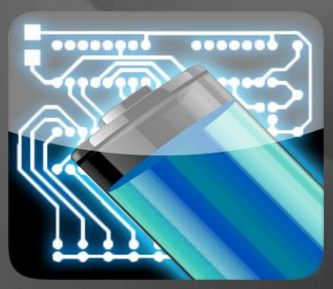
- Unity power factor and low input distortion
- ECO Mode for energy saving
- DSP-controlled technology
- Superior overload capability
- Efficiency up to 96%
- Low input current total harmonic distortion

### 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.

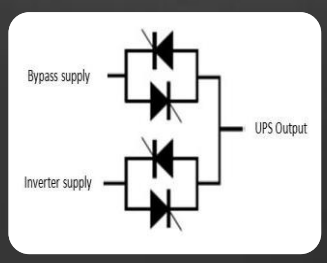


### Smart Charge Current Adjustment

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.

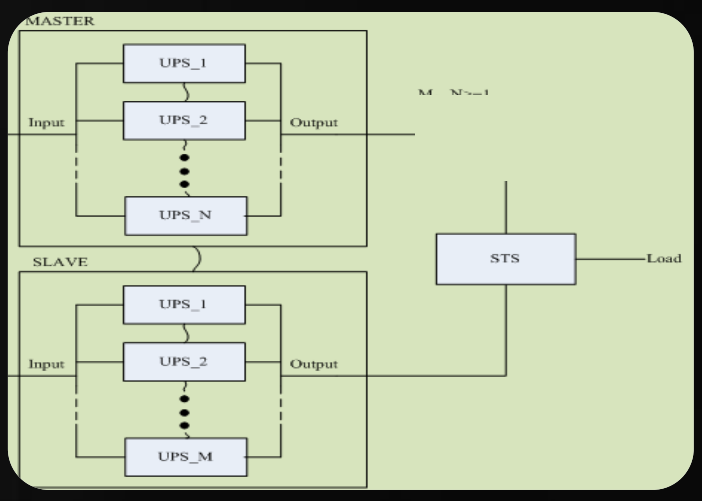
If a single module fails or needs to be taken offline for service, the UPS system will still be able to provide an adequate supply of power because it's already been configured with one or more extra module. For example, when using a N+1 redundancy, the UPS modules should be sized so that the total anticipated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

## ECO (Energy Saving) Mode

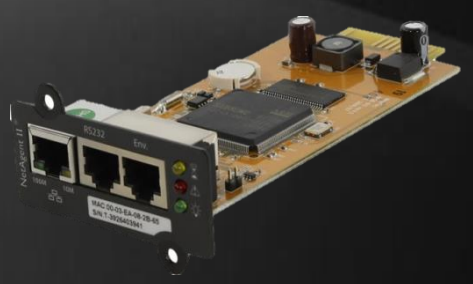
ECO mode is a method of operating the UPS at reduced power protection in order to obtain improved electrical efficiency and save energy. The benefit of ECO mode is that the efficiency of the bypass path is typically between 98.0% and 99%, compared to the base UPS efficiency of 94% to 97%. This means 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.

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# 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%)<br>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<br>≤4% with non linear load | | | | | | |
| Efficiency | | maximum 96% | | | | | | |
| **BATTERY** | | | | | | | | |
| Battery voltage | | Optional Voltage: ±180V/±192V/±204V/±216V/±228V/±240/±252/±264/±276/±288/±300Vdc<br>(30/32/34/36/38/40/42/44/ 46/48/50pcs optional);<br>(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 sentor(optional) | | | | | | |
| **ENVIRONMENTAL** | | | | | | | | |
| Operating temperature | | 0℃~40℃ | | | | | | |
| Storage temperature | | -25℃~55℃ | | | | | | |
| Humidity range | | 0~95% (non condensing) | | | | | | |
| Altitude | | < 1500m | | | | | | |
| Noise level(from 1M distance) | | <65dB | <63dB | | <65dB | <70dB | <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.

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RoHS


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