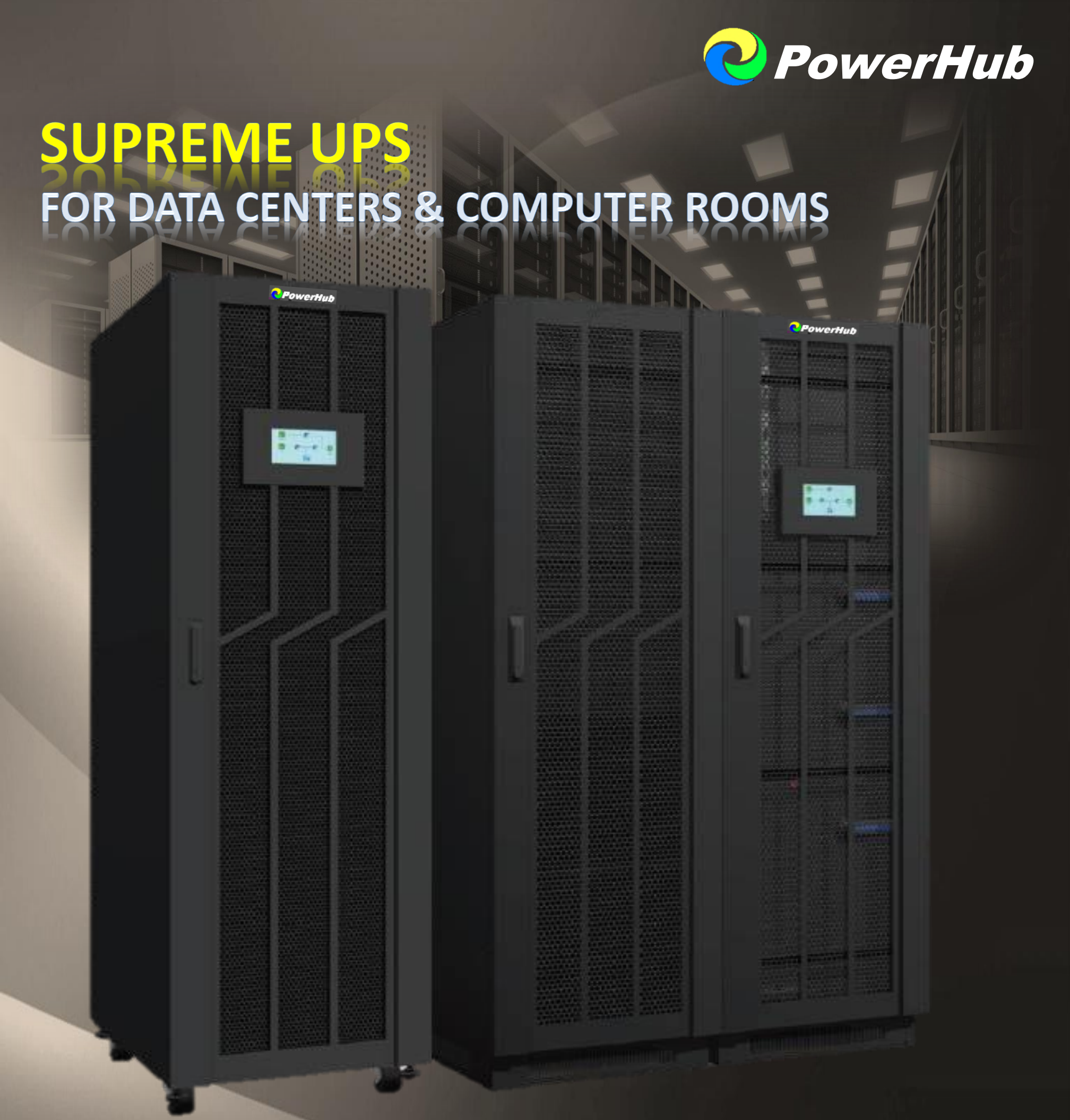
PowerHub

SUPREME UPS

FOR DATA CENTERS & COMPUTER ROOMS



EXCEPTIONAL PERFORMANCE

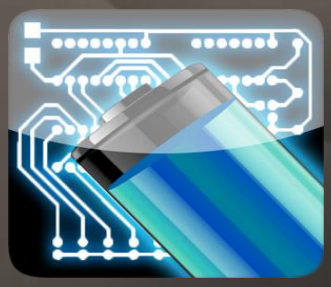
Unity power factor and low input distortion
ECO Mode for energy saving
DSP-controlled technology
Superior overload capability
Efficiency up to 98%
Low input current total harmonic distortion

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 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 DSP digital control technology with an output power factor of 1. The efficiency of the entire device can reach up to 95%. 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.

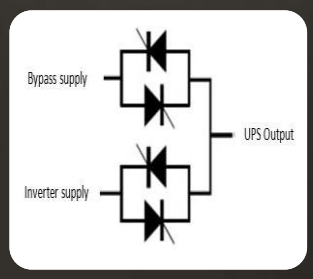


Smart Charge Current Adjustment

SUPREME 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 *(Applicable to 30kVA and above)*

Supreme 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.

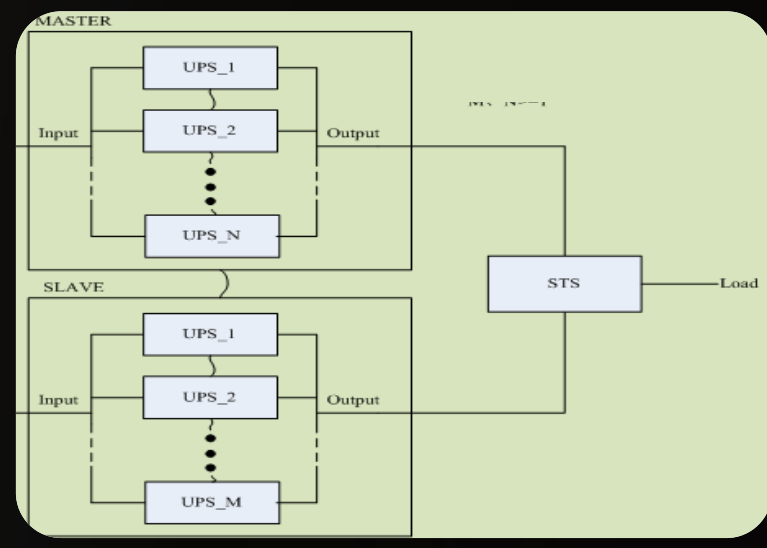
If a single module fails or needs to be taken offline for service, the UPS system will still be able to provide an adequate supply of power because it's already been configured with one or more extra module. For example, when using a N+1 redundancy, the UPS modules should be sized so that the total anticipated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

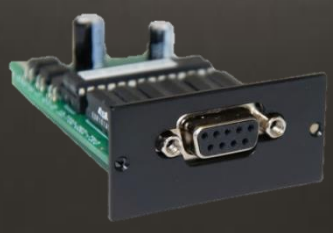
ECO (Energy Saving) Mode

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)
(Applicable to 30kVA and above)

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

PowerHub Supreme UPS Series

MODELS

MODEL NAME	Supreme 10K-TT (Std/Ext) 15K-TT (Std/Ext) 20K-TT (Std/Ext)	Supreme 30K-TT (Std/Ext)	Supreme 40K-TT (Std/Ext)	Supreme 60K-TT (Ext) 80K-TT (Ext)	Supreme 100K-TT (Ext) 120K-TT (Ext) 160K-TT (Ext)	Supreme 200K-TT (Ext) 250-TT (Ext) 300K-TT (Ext)	Supreme 400K-TT (Ext) 500K-TT (Ext)
Rating (KVA/KW)	10KVA/9KW 15KVA/13.5KW 20KVA/18KW	30KVA/27KW	40KW/36KW	60KVA/54KW 80KVA/72KW	100KVA/90KW 120KVA/108KW 160KVA/144KW	200KVA/180KW 300KVA/270KW	400KVA/360KW 500KVA/450KW
Dimension WxDxH (mm)	600x780x1200				600x850x1600	600x850x2000	1200x850x2000
Weight (kg)	598 to 602 (Std) 129 to 133 (Ext)	602 (Std) 133 (Ext)	603 (Std) 134 (Ext)	170 172	345 to 379	380 to 575	900 to 1005

BATTERY

Battery Voltage (VDC)	216V (Std) ±192/204/216/228/240 (Ext)					
BATT Type / Number	12V/38Ah x 36pcs (Std)		NA			
Charger Current (A)	5.7 (Std) 6 (Ext)	5.7 (Std) 10 (Ext)	20 (MAX)	30 to 40	50 to 80	100 to 130

Due to ongoing product improvements, specifications are subject to change without notice.

TECHNICAL SPECIFICATIONS

Electrical Input

Input Voltage: 380/400/415VAC
Frequency Range : 40~70Hz
THDi: 2% (non linear load) (TT Model 10 KVA to 30KVA)
3% (non linear load) (TT Model 100KVA & Above)

Electrical Output

Output Voltage: 380/400/415VAC
Power Factor: 0.9
Crest Factor: 3:1
Efficiency: 95%
Transfer Time: 0ms (Mains – Battery)
0ms (Mains – Bypass)
Overload: <110% - 60mins
<125% - 10mins
<150% - 1min
THDv: <2% (linear load), <3% (non-linear load)

Environmental

Operating Temperature: 0 ~ 40˚C
Relative Humidity: 0 ~ 90%, No condensation
Noise: <55dB (From 10KVA to 80KA)
<70dB (From 100KVA to 200KVA)
<73dB (From 300KVA to 500KVA)
Altitude: <1500m

Communication Interface

RS232, RS485, Dry Contact, Intelligent slot x 2 (For SNMP card and Relay card), LBS

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: IEC/EN62040-3

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