

Uninterruptible Power Supply Systems



Global Technology
and Energy Company

Local Area Networks (LAN)
Servers
Data Centers
Internet Centers (ISP/ASP/POP)
Industrial PLCs
Emergency Devices (Lights/Alarms)
Electro-Medical Devices
Telecommunications Devices
Industrial Applications



SUPREME

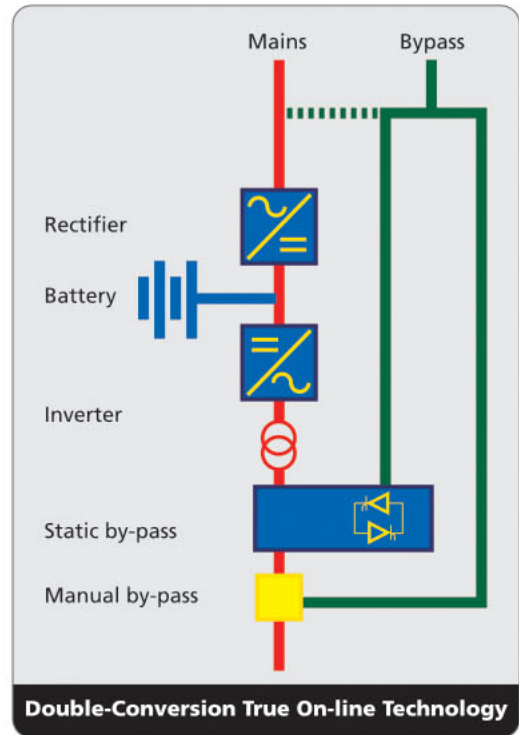
8-20 kVA three-phase/single-phase
10-40 kVA three-phase/three-phase
60-80 kVA three-phase/three-phase
100-200 kVA three-phase/three-phase

The **Supreme** series includes the 8-10-15-20kVA three/single-phase, 10-15-20-30-40 -60-80-100-120-160-200 kVA three-phase models and uses double conversion on-line technology (VFI) with an isolation transformer on the inverter output. The load is powered continuously by the inverter with a filtered, stabilised and regulated sinewave supply. The input and output EMI filters considerably increase the immunity of the load to mains disturbances and surges.

Supreme provides maximum protection for vital 'mission-critical' networks, security applications (electromedical) and industrial applications thanks to its outstanding mechanical and electrical design.

Supreme is supplied with PowerShield² software as standard and can be remotely monitored using the Teleguard system from anywhere in the world.

Additional battery extension packs allow the standard battery runtime to be extended up to several hours.



Maximum protection for vital 'mission-critical' networks, security and industrial applications



100-160kVA

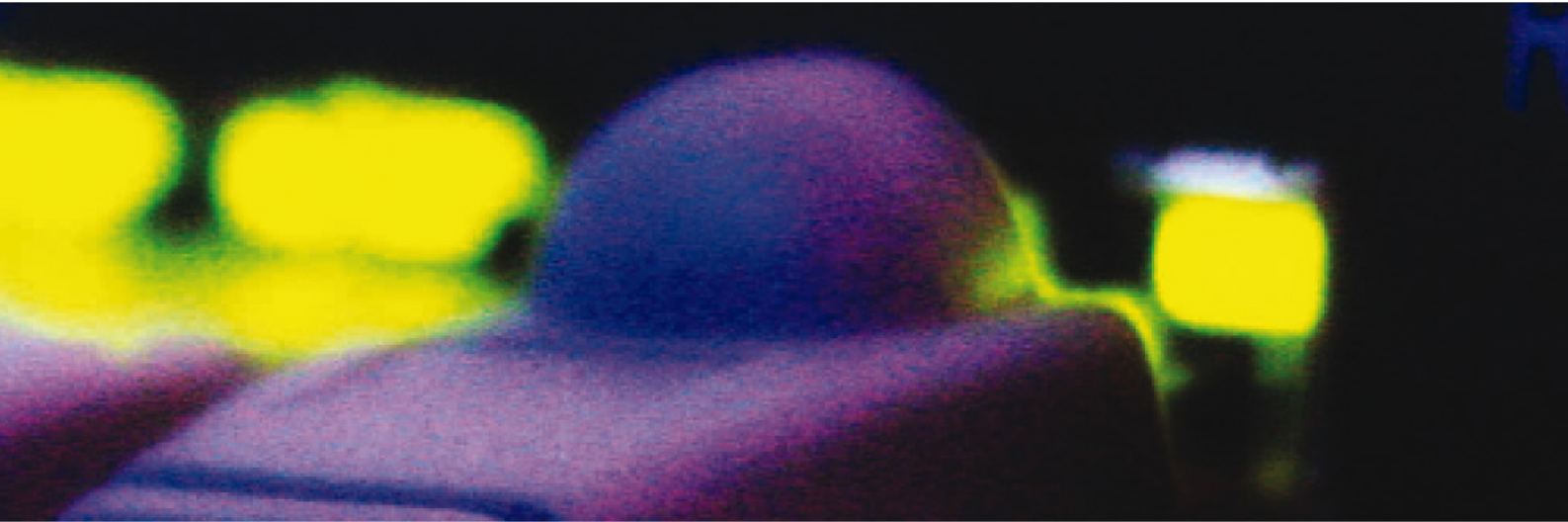
Simplified Maintenance

Access for maintenance is entirely from the front of the unit. Power and electronic components are easily accessible from the front for maintenance and repair work. This particular feature means that the MTTR (Mean Time To Repair) is typically less than 30 minutes.

A large amount of maintenance information is available from the front mimic panel and LCD. In addition system operating parameters are software configurable via a local PC to allow new functions to be added or adjustments made to operating specifications.

UPS Front Panel

1. Language selection
2. Input/output measurements
3. Controls/settings/customisations
4. Event log
5. Buzzer reset
6. Time/date
7. Scroll back
8. Scroll forward
9. Digital display
10. Bypass On/Manual Bypass
11. Inverter On
12. Main supply present
13. Functioning from batteries/end of discharge pre-alarm



Main Features

- reliable, filtered, stabilised and regulated sinewave output (double conversion on-line technology VFI according to EN50091-3 specifications) with filters for atmospheric disturbance suppression
- high reliability: IGBT technology, full microprocessor control with no-break static and manual bypasses, extremely high short-circuit current (2.8In single phase version, 4In three phase version) to ensure compatibility with the most difficult transformer applications (lighting, drives and industrial processes) and an isolation transformer on the inverter output
- maximum reliability and power availability - connect up to 6 units in parallel or N+1 redundancy, even of different power ratings (optional)
- low input total harmonic distortion (<5%) (optional)
- high level diagnostics: event log with 128 messages, states, measurements and alarms - available from the built-in LCD in several languages
- Low loss high efficiency up to 98% in ECO-Mode for all **Supreme** models
- Simple to install:
 - capability to install the UPS into any distribution system (neutral not required on rectifier input)
 - capability to separate the rectifier/bypass power networks and of powering these from two separate sources, without galvanic isolation (necessary on those UPS without an output transformer)
- capability of regulating the output voltage (to offset voltage drops down long cable runs)
- built-in automatic and manual battery test feature, battery deep discharge protection and temperature compensating charger
- BACK FEED protection: to avoid energy feeding back into the mains supply should a fault occur.

Technical Data Specifications

THREE PHASE/ SINGLE PHASE MODELS	SUPREME			
	08 (3/1)	10 (3/1)	15 (3/1)	20 (3/1)
INPUT				
Rated power (kVA)	8	10	15	20
Rated voltage (V)	400 Vac three-phase			
Voltage range	±20%			
Frequency range	45/65 Hz			
Power factor	0.8 (0.9 in CLEAN version)			
BYPASS				
Rated current (A)	35	43	65	87
Rated voltage (V)	230 Vac single-phase			
Permitted voltage range	±15% (selectable from ±10% to ±25% from front panel)			
Rated frequency	50/60 Hz (autorange)			
Permitted frequency range	±2% (selectable from ±1% to ±5% from front panel)			
Standard features	BackFeed protection; separate bypass line			
BATTERIES				
Type	Maintenance-free sealed lead-acid			
Maximum recharge current (A)	0.2xC10			
RECTIFIER OUTPUT				
Maintenance voltage	Variable acc. to temperature (-0.5 Vx°C)			
Ripple	<1%			
INVERTER OUTPUT				
Rated power (kVA)	8	10	15	20
Rated power (kW)	6.4	8	12	16
Number of phases	single-phase			
Rated voltage (V)	220/230/240			
Rated current (A)	35	43	65	87
Regulation of output voltage	200 - 244 V phase/neutral (from control panel) ±5%			
Crest factor (I _{peak} /I _{rms})	3:1			
Waveform	Sinewave			
Static stability	±1%			
Dynamic stability	±5% in 5ms			
Frequency	same as the input (autorange)			
Overload	125% 150% 200% of the rated current for 10'/1'/'7"			
Frequency stability	±0.05% on mains failure ±2% (selectable from ±1% to ±5% from front control panel) with mains supply present			
ENVIRONMENTAL				
Remote signalling	volt free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm, output 0.5A/42V)			
Remote controls	EPO and bypass			
Operating temperature	0 - 40°C			
Relative humidity	95% (non condensing)			
Colour	Light grey RAL 7035			
Noise	48-54 dBA at 1m		53-60 dBA at 1m	
Protection rating	IP20			
Efficiency	>91% up to 98%		>92% up to 98%	
Compliance	Safety EN 50091-1-1 EMC EN 50091-2 Directives 73/23-93/68-89/336 EEC			
Weight (kg)	from 190 to 460	from 200 to 470	from 220 to 490	from 230 to 500
Dimensions (mm) (LxDxH)	555x720x1200			
Back-up (min) Internal	from 0 to 50	from 0 to 40	from 0 to 20	from 0 to 15

Option: CLEAN VERSION for 5% THDi, Remote Monitor Panel, Communication Software & Accessories, Isolation transformer, Parallelable 6 units.

Note: UPS specification and data may subject to change for improvement without prior notice.
UPS three-phase/single phase series: The input cables and protection must be capable of supplying the fully rated single phase output load should UPS switches to bypass mode.

THREE PHASE MODELS	SUPREME						
	10 (3/3)	15 (3/3)	20 (3/3)	30 (3/3)	40 (3/3)	60 (3/3)	80 (3/3)
INPUT							
Rated power (kVA)	10	15	20	30	40	60	80
Rated voltage (V)	400 Vac three-phase						
Voltage range	±20%						
Rated Frequency	50/60 autorange						
Frequency range	45/65 Hz						
Power factor	0.8 (0.9 in CLEAN version)						
BYPASS							
Rated current (A)	14	22	29	43	58	87	115
Rated voltage (V)	400 Vac three-phase						
Permitted voltage range	±15% (selectable from ±10% to ±25% from front panel)						
Rated frequency	50/60 Hz (autorange)						
Permitted frequency range	±2% (selectable from ±1% to ±5% from front panel)						
Standard features	BackFeed protection; separate bypass line						
BATTERIES							
Type	Maintenance-free sealed lead-acid						
Maximum recharge current (A)	0.2xC10						
RECTIFIER OUTPUT							
Maintenance voltage	Variable acc. to temperature (-0.5 Vx°C)						
Ripple	<1%						
INVERTER OUTPUT							
Rated power (kVA)	10	15	20	30	40	60	80
Rated power (kW)	8	12	16	24	32	48	64
Number of phases	3Ø + N						
Rated voltage (V)	380/400/415 selectable						
Rated current (A)	14	22	29	43	58	87	115
Regulation of output voltage	200 - 244 V phase/neutral (from control panel) ±5%						
Crest factor (I _{peak} /I _{rms})	3:1						
Waveform	Sinewave						
Static stability	±1%						
Dynamic stability	±5% in 5ms						
Frequency	same as the input (autorange)						
Overload	125% 150% 200% of the rated current for 10'/1'17"						
Frequency stability	±0.05% on mains supply failure						
	±2% (selectable from ±1% to ±5% from front panel) with mains supply present						
ENVIRONMENTAL							
Remote signalling	volt free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm, output 42V/0.5A)						
Remote controls	EPO and bypass						
Operating temperature	0 - 40°C						
Relative humidity	95% (non condensing)						
Colour	Light grey RAL 7035						
Noise	48-54 dBA at 1m		53-60 dBA at 1m			53-62 dBA at 1m	
Protection rating	IP20						
Efficiency	>90% up to 98%		>91% up to 98%			>92% up to 98%	
Compliance	Safety EN 50091-1-1 EMC EN 50091-2 Directives 73/23-93/68-89/336 EEC						
Weight (kg)	fr. 210 to 480	fr. 220 to 490	fr. 230 to 500	fr. 282 to 552	330	450	555
Dimensions (mm) (LxDxH)	555x720x1200					800x740x1400	
Back-up (min) Internal	from 0 to 40	from 0 to 20	from 0 to 15	0	0	0	0

Option: CLEAN VERSION for 5% THDi, Remote Monitor Panel, 12 pulse Rectifier*, Communication Software & Accessories, Isolation transformer, Parallelable 6 units.* For the following models: 60 (3/3) & 80 (3/3)

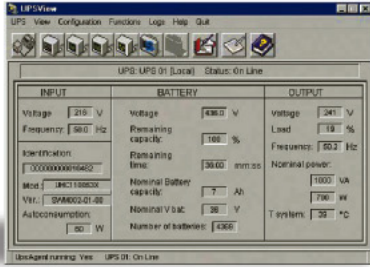
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Technical Data Specifications

THREE PHASE MODELS	SUPREME			
	100 (3/3)	120 (3/3)	160 (3/3)	200 (3/3)
INPUT				
Rated power (kVA)	100	120	160	200
Rated voltage (V)	400 Vac three-phase			
Voltage range	±20%			
Frequency range	45-65 Hz			
Power factor	0.8 (0.9 in CLEAN version)			
BYPASS				
Rated current (A)	145	174	232	290
Rated voltage (V)	400 Vac three-phase			
Permitted voltage range	±15% (selectable from ±10% to ±25% from front panel)			
Rated frequency	50/60 Hz (autorange)			
Permitted frequency range	±2% (selectable from ±1% to ±5% from front panel)			
Standard features	BackFeed protection; separate bypass line			
BATTERIES				
Type	Maintenance-free sealed lead-acid			
Maximum recharge current (A)	0.2xC10			
RECTIFIER OUTPUT				
Maintenance voltage	Variable acc. to temperature (-0.5 Vx°C)			
Ripple	<1%			
INVERTER OUTPUT				
Rated power (kVA)	100	120	160	200
Rated power (kW)	80	96	128	160
Number of phases	3Ø + N			
Rated voltage (V)	380/400/415 selectable			
Rated current (A)	145	174	232	290
Regulation of output voltage	200 - 244 V phase/neutral (from control panel) ±5%			
Crest factor (I _{peak} /I _{rms})	3:1			
Waveform	Sinewave			
Static stability	±1%			
Dynamic stability	±5% in 5ms			
Frequency	same as the input (autorange)			
Overload	125% 150% 200% of the rated current for 10'/1'/7"			
Frequency stability	±0.05% on mains supply failure ±2% (selectable from ±1% to ±5% from front panel) with mains supply present			
ENVIRONMENTAL				
Remote signalling	volt free contacts (mains power failure, UPS on bypass, end of discharge pre-alarm, output 12Vdc/80mA)			
Remote controls	EPO and bypass			
Operating temperature	0 - 40°C			
Relative humidity	95% (non condensing)			
Colour	Light grey RAL 7035			
Noise	54-62 dBA at 1m			
Protection rating	IP20			
Efficiency	>93% up to 98%			
Compliance	Safety EN 50091-1-1 EMC EN 50091-2 Directives 73/23-93/68-89/336 EEC			
Weight (kg)	650	750	1000	1200
Dimensions (mm) (LxDxH)	1070x740x1400			1420x740x1800

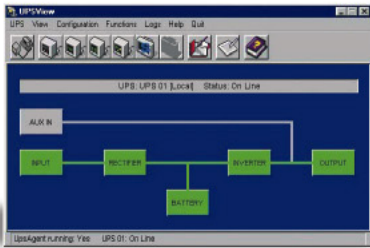
Options: CLEAN VERSION for 5% THDi, 12 pulse Rectifier, Remote Monitor Panel, Communication Software & Accessories, Isolation transformer, Parallelable 6 units.

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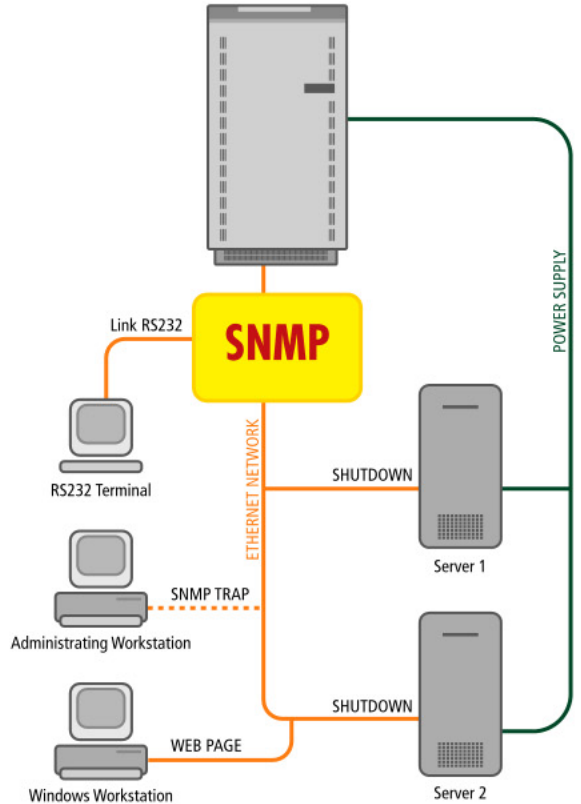
DETAILED UPS PARAMETER DISPLAY

PowerShield² provides all the information required for first level diagnostics.



BLOCK AND FUNCTIONAL DIAGRAMS

PowerShield² also displays the UPS in block format providing the user with information regarding operating status.



DIRECT CONNECTION WITH ETHERNET NETWORK

■ Communication Solutions



LED Remote Panel



LCD Remote Panel

ADVANCED COMMUNICATION

- Compatible with TELEGUARD for remote maintenance
- *Advanced, multi-platform communication, for all operating systems and network environments: **PowerShield²** supervision and shut-down software included, with SNMP agent, for Windows 95, 98, 2000, Me, XP, Mac OSx, 9.x, Linux, NT 4.0, Novell operating systems. The UPS is equipped with a cable for direct connection to the PC (Plug and Play)
- *Can also provide shut-down software for: IBM AIX; Free BSD; BSDI UNIX; BSD/OS; Unixware; SCO Openserver; Solaris; SUN; DEC; Compaq True64; HP UNIX; SGI Irix MIPS; NCR UNIX
- Double RS232 serial port
- Network adapter slot for SNMP agent
- EPO (Emergency Power Off) shut down input contact
- Remote control panel (optional)

*All the trademarks indicated are the property of their respective owners.