

Uninterruptible Power Supply Systems



MicroMate[®]

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

MOV Series

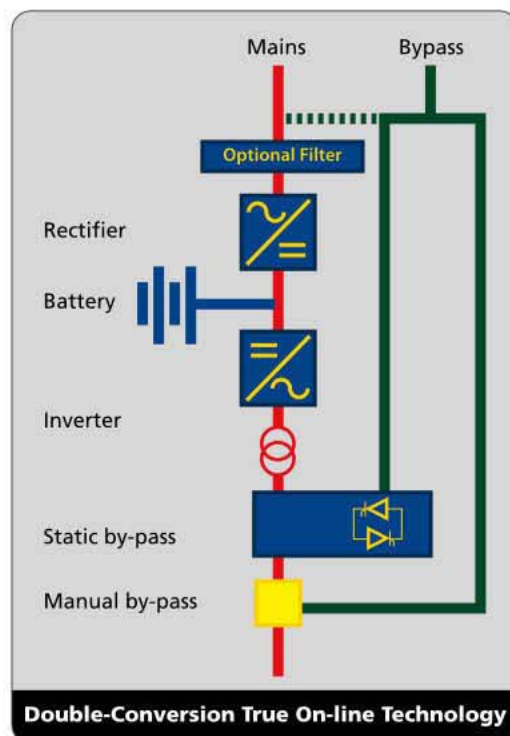
30-100 KVA three-phase / single-phase
250-800 KVA three-phase / three-phase

The **MOV Series** range includes the 250-300-400-500-600-800kVA three-phase models and 30-40-60-80-100 kVA three/single-phase and uses double conversion on-line technology (VFI) with an isolation transformer on the output of the inverter.

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.

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

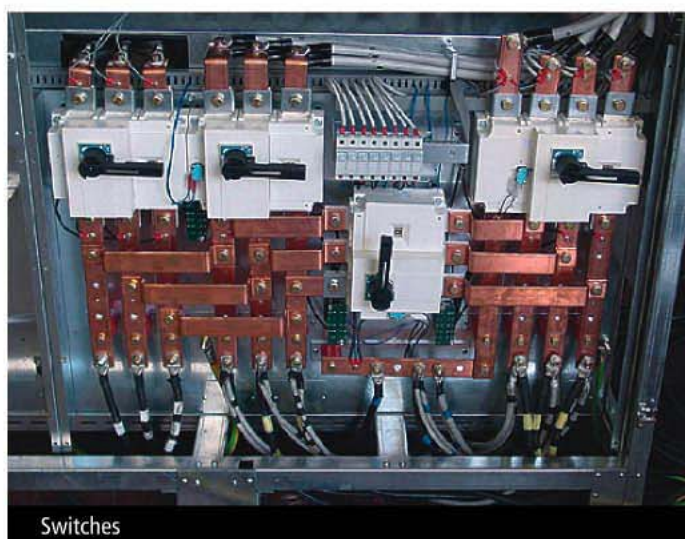
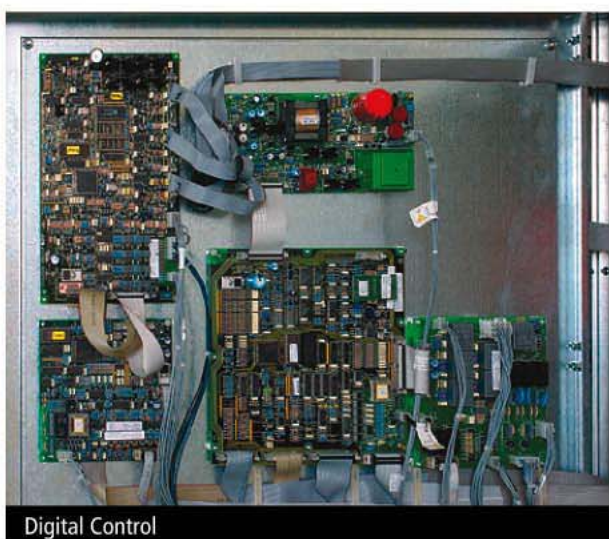
- isolation transformer on the inverter
- extremely high short-circuit current
- sinusoidal absorption (THDi up to 3% with CLEAN version)



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

SPECIFIC SOLUTIONS

MOV Series can be adapted to your requirements.

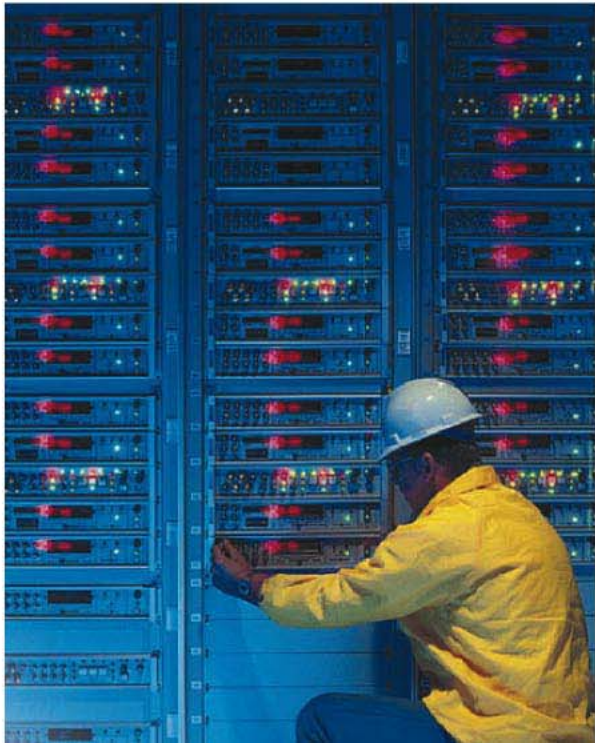


Main Features

- 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 to ensure compatibility with the most difficult applications (lighting, drives and industrial processes) and an isolation transformer on the inverter output
- Minimum impact on the mains supply: up to 3% input current distortion to prevent resonance problems for upstream applications. The distortion is unaffected by impedance or frequency, and allows economies when sizing power sources such as isolation transformers or generators for **MOV Series** installations
- High level diagnostics: event log, states, measurements and alarms, available from the built-in LCD in several languages
- Suitable to power capacitive load from 0.9 leading to 0.9 lagging without reduction in active power.
- Maximum reliability and power availability (parallel up to 6 units for redundant (N+1) or parallel operation)
- EPO (Emergency Power Off) input for UPS shut-down using remote emergency button
- Compatible with TELEGUARD for remote maintenance
- Front access
- Parallel card fitted
- Back-feed protection fitted as standard
- SNMP agent for interfacing to network (optional)



Top Ventilation with Redundant Fans



Simplified Maintenance

Access for maintenance is entirely from the front of the unit. The power and electronic components are easily accessible 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.

Technical Specifications

Uninterruptible Power Supplies

THREE PHASE/ SINGLE PHASE MODELS	MOV Series				
	30 (3/1)	40 (3/1)	60 (3/1)	80 (3/1)	100 (3/1)
INPUT					
Rated power (kVA)	30	40	60	80	100
Rated voltage (V)	400 Vac three-phase				
Voltage range	±15%				
Frequency range	50/60 Hz±5%				
BYPASS					
Rated current (A)	130	174	261	348	434
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) 2% (1-5% selectable)				
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) cosφ 0.8	30	40	60	80	100
Rated power (kW)	24	32	48	64	80
Number of phases	single-phase				
Rated voltage (V)	220/230/240 single-phase				
Rated current (A)	130	174	261	348	434
Crest factor (I _{peak} /I _{rms})	3:1				
Waveform	Sinewave				
Static stability	±1%				
Dynamic stability	±5% in 5ms				
Frequency	50Hz				
Overload	125% 150% of the rated current for 10'/1'				
Frequency stability	±0.05% with mains supply failure / ±2% with mains supply present (1-5% selectable)				
ENVIRONMENTAL					
Operating temperature	0 - 40°C				
Relative humidity	95% (non condensing)				
Colour	Light grey RAL 7035				
Noise	65 dBA at 1m				
Protection rating	IP20				
Efficiency	>91% up to 98%				
Compliance	Safety EN 50091-1-1 EMC EN 50091-2 Directives 73/23-93/68-89/336 EEC				
Weight (kg)	280	330	440	520	650
Dimensions (mm) (LxDxH)	555x720x1200		800x740x1400		1070x740x1400

Option:

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

Note:

UPS Specifications and data subject to change for improvement without prior notice.

Technical Specifications

Uninterruptible Power Supplies

THREE PHASE MODELS	MOV Series					
	250 (3/3)	300 (3/3)	400 (3/3)	500 (3/3)	600 (3/3)	800 (3/3)
	12 pulses	12 pulses	12 pulses	12 pulses	12 pulses	12 pulses
INPUT						
Rated voltage (V)	400 Vac three-phase + N					
Voltage range	300V to 480V					
Frequency range	45Hz to 65Hz					
THDi & Power Factor	< 5% , ≥0.93			≤7% , ≥0.84		
BYPASS						
Rated current (A)	262	435	580	725	870	1160
Rated voltage (V)	400 Vac three phase + N					
Permitted voltage range	±15% (selectable from ±10% to ±25% from front panel)					
Rated frequency	50/60 Hz (autorange) 2% (1-5% selectable)					
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) cosfi 0.8	250	300	400	500	600	800
Active Power with load p.f from 0.8 ind. to 0.9 cap. (kW)	200	240	320	400	480	640
Number of phases	3 phase + N					
Rated voltage (V)	380/400/415 three-phase + N					
Rated current (A)	362	434	579	724	869	1159
Crest factor (Ipeak/Irms)	3:1					
Waveform	Sinewave					
Static stability	±1%					
Dynamic stability	±5% in 5ms					
Frequency	50Hz					
Overload	125% 150% of the rated current for 10'/1'					
Frequency stability	±0.05% with mains supply failure / ±2% with mains supply present (1-5% selectable)					
ENVIRONMENTAL						
Operating temperature	0 - 40°C					
Relative humidity	95% (non condensing)					
Colour	Light grey RAL 7035					
Noise	65 dBA at 1m			75 dBA at 1m		78 dBA at 1m
Protection rating	IP20					
Efficiency	>92%	>93%		>94%		
Compliance	Safety EN 50091-1-1 EMC EN 50091-2 Directives 73/23-93/68-89/336 EEC					
Weight (kg)	2170	2200	2590	3800	4200	5450
Dimensions (mm) (LxDxH)	1630x850x1900		1630x1000x1900	3200x1000x1900		4400x1000x1900

Option:

CLEAN VERSION for <3% THDi, Remote Monitor Panel, Communication Software & Accessories,
Isolation transformer, Parallelable 6 units.

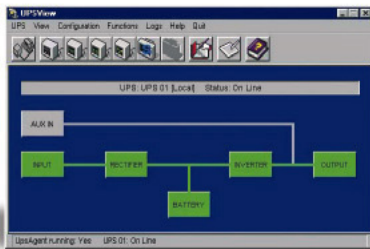
Note:

UPS Specifications and data subject to change for improvement without prior notice.



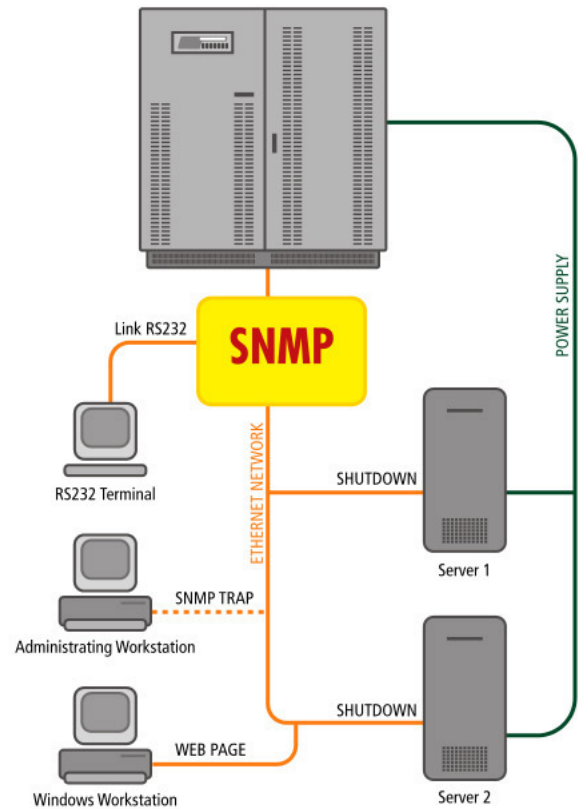
DETAILED UPS PARAMETER DISPLAY

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)



**INTERNATIONAL GOLD STAR
FOR QUALITY AWARD (ISAQ)
GENEVA 2008**