

TECHNICAL DATA SHEET

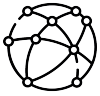
MODSECUR M6M

TECHNOLOGY TRUE ON LINE Double Conversion

POWER RANGE 50 ÷ 600 kVA/kW

NUMBER OF PHASES 3:3

APPLICATIONS



Large computer networks



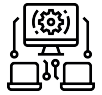
Data processing centres



Clusters



Industrial equipment



Tele-information systems



Automation and control systems



SPECIFICATION Up to four unit parallel work for capacity or redundancy

True On-Line Double Conversion Technology provides perfect output voltage parameters, regardless of the input voltage and the load.

Modular topology with HOTSWAP modules - possibility to extend UPS up to 600kVA in one case without any interruption to the load. Hot swap modules 50kVA/kW provides very low MTTR which brings to the customer huge reliable of whole system.

Rectifier and Inverter SPWM IGBT - lower cost - simple hardware circuit - high IGBT utilization - excellent THDi and Input Power Factor performance.

Automatic Bypass (Static Switch) provides continuous load supply in critical conditions, such as overheating or inverter failure. HotSwap bypass function allow to maintenance without interruption.

Maintenance Bypass (uninterruptible) enables service handling without necessity of shutting off the load.

Separate supplying of Bypass line provides reserve power source for load even when the UPS is damaged or main line protection is affected.

Communication:
Modbus, RS-232, USB for managing UPS; **Dry Contact** alarm indicators; work with BMS systems; **SNMP** integration with systems management network NMS.

High efficiency (up to 97%) reduces heat dissipation and limits power consumption costs.

LCD Control Panel displays UPS and power parameters as well as hundreds of useful information.

Small dimensions - requires small area for unit operation.

Modular design – fast maintenance and short MTTR.

ECO-Mode gives possibility of significant cost reduction and in practice stops heat emission.

Smart sleep mode to improve operating efficiency and reduce operating costs; Cycle maintenance, effectively extending the life of the system and improving the efficiency of the whole machine.

High input power factor reduces the value of current drawn from the mains.

Highest output power factor PF=1 allows to connect much more equipment in comparison to the UPS with PF=0,8 or 0,9.

Wide input voltage range for normal mode ensures that the batteries are used only if necessary - in fact, only when the input voltage is completely lost.

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Wide input frequency range for normal mode gives possibility for seamless operation with different power sources - as mains or the generating set.

Simple maintenance - microprocessor control and 24h/7 operation mode means that the unit doesn't require specialized handling. History log with 10 000 items.

Advanced Battery Management gives reliability of optimal charging and using batteries, elongates its lifetime and reduces operating costs.

Excellent voltage quality is provided by IGBT inverter and high-frequency PWM technology; the output voltage has always stable parameters, independent of input disturbances and the load characteristics.

High overload capacity indicates power reliability during transient conditions and high resistance on handling faults. 130% - 10 minutes and 150% - 1 minute.

User configurable settings - enable user to set nominal voltages, frequency, preferred operating modes.

Remote Emergency Power Off port (REPO) provides remote shutting off the load and UPS in case of emergency.

Configurable batteries quantity 30-46 pcs and charging current – allows user to set required autonomy time.

- Redundancy configurations:**
- Parallel for capacity or redundancy, N+X≤10
 - Hot Standby
 - Load bus synchroniation

Model	M6M 600
Power	50kW – 600kW
No. of phases in:out	3:3
Input	
Voltage	380 / 400 / 415 VAC
Voltage range	L:L 138 – 485 VAC
Frequency	50/60 Hz
Frequency range	40 – 70 Hz
THDi	<3%
Input power factor	≥ 0,99
Output	
Voltage	380 / 400 / 415 VAC
Voltage regulation static/dynamic	±1% / ±2%
Frequency	50/60 ± 0,1 Hz
Overload capacity	110% - 60 min, 125% - 10 min., 150% - 60 sec., >150% - 200 ms
Efficiency	Up to 97%
Eco mode efficiency	99%
Crest factor	3:1
Batteries	
Type	Maintenance free, sealed VRLA AGM, ready for Lithium batteries
Configurable batteries	30-46 psc. 12V
Charging	3 ÷ 8 hours up to 90% of capacity
Weight and dimensions	
Dimensions of UPS (WxDxH)	1200 x 860 x 2000 mm
Weight of cabinet	427 kg
Weight of power module	33 kg
Weight of bypass module	31 kg
Communications	
Operation mode indicators	Touchable 7" LCD display, LED indicators , sound alarm, inbuild 4 channel oscilloscope
Communication	RS232, RS485, MODBUS 485, USB, Dry Contact, SNMP , REPO, parallel slots

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Model	M6M 600
Power	50kW – 600kW
Environmental	
Noise level depending the load and temp.	< 70 dB (A)
Operating temperature for UPS	0 °C ÷ 40 °C
Recommended operating temperature for UPS and batteries	15 °C ÷ 25 °C
Storage temperature	- 15 °C ÷ 55 °C
Humidity	5 ÷ 95 % (non condensing)
Standards	
EN 62040-2:2005, EN 62040-2:2006, EN 60950-1, CE	
Optional equipment	
- SNMP card - Uninterruptible External Maintenance Bypass	- Remote status panel - Software - Battery cabinets or rack.