



X3 Series HM 60-100kVA

THREE-PHASE IN / SINGLE-PHASE OUT
DOUBLE CONVERSION ON-LINE



The X3 HM series includes the 60-80-100 kVA three/single-phase, 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, even on bypass.

X3 HM provides maximum protection for vital “mission-critical” networks, security applications (electromedical) and industrial

applications thanks to its outstanding mechanical and electrical design.

X3 HM is supplied with UPSMon software as standard and can be remotely monitored.

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

- 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 ($2.8I_n$) 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
- low input total harmonic distortion (<5%)
- 0.8 power factor makes Master Dialog suitable for powering ICT and industrial loads
- high level diagnostics: event log with 128 messages, states, measurements and alarms
 - available from the built-in LCD in several languages
- Simple to install:
 - Capability to install the UPS into any distribution system
 - 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 Specifications:

MODELS	HM 60	HM 80	HM 100
POWER (kVA)	60	80	100
INPUT			
Rated Voltage (V)	400 Vac three-phase		
Voltage Range	± 20%		
Frequency Range	45 ÷ 65 Hz		
Power Factor	> 0.92 in HM CLEAN version		
Distortion of The Current Absorbed	< 5% in HM CLEAN version		
Soft Start	0-100% in 10"		
BY PASS			
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	Back Feed protection; separate bypass line		
BATTERIES			
Type	Maintenance-free lead-acid VRLA AGM / GEL; NiCd		
Maximum Recharge Current (A)	0.2 x C10		
RECTIFIER OUTPUT			
Maintenance Voltage	Variable acc. to temperature (-0.5 Vx°C)		
Ripple	< 1%		
INVERTER OUTPUT			
Rated Power (kVA)	60	80	100
Rated Voltage (kW)	48	64	80
Number of Phases	1		
Rated Voltage (V)	230 single-phase		
Rated Current (A)	261	384	434
Regulation of The Output Voltage	220 ÷ 244 V (configurable from control panel)		
Crest Factor (I _{peak} /I _{rms})	3:1		
Waveform	Sinewave		
Static Stability	± 1%		
Dynamic Stability	± 5% in 5 ms		
Frequency	50/60 Hz configurable		
Overload	110% 125% 150% of the rated current for 5h/10'/1'		
Frequency Stability	± 0.05% on mains failure; ± 2% (selectable from ± 1% to ± 5%) with mains supply present		

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MODELS	HM 60	HM 80	HM 100
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ENVIRONMENTAL			
Weight (kg)	440	520	650
Dimensions (hwd) (mm)	1400 x 800 x 740		1400 x 1070 x 740
Remote Signalling	Volt free contacts		
Remote Controls	EPO and Bypass		
Communication	RS232 + remote contacts		
Operating Temperature	0°C - 40°C		
Relative Humidity	< 95% non condensing		
Colour	Light grey RAL 7035		
Noise (at 1 meter)	65 dBA		
Protection Rating	IP20		
Efficiency	> 92%		
Compliance	Safety EN 62040-1 EMC EN 62040-2 Directives 73/23 - 93/68 - 89/336 EC EN 62040-3		
OPTIONS			
Empty Battery Cabinets	X	X	X
Parallel Kit	X	X	X
LCD-based Remote Control Panel	X	X	X
LED-based Remote Control Panel	X	X	X
MultiCom 351	X	X	X
MultiCom 301	X	X	X
Netman 101Plus	X	X	X
Multi I/O	X	X	X
IRMS Multi-Switch	X	X	X
AS/400 Interface	X	X	X
UPS Remote Contacts Expander	X	X	X
UGS- UPS Group Synchronizer	X	X	X
PSJ - Power System Joiner	X	X	X
MultiCom 401	X	X	X