

# X<sub>6</sub> Series MPS 200-800kVA

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



# **QUALITY POWER SUPPLY**

EPI MP is an on-line, double conversion UPS of class VFI SS 111 in accordance with IEC EN 62040-3 with the Inverter output transformer inside, solution that is particularly suitable for high level applications where the immunity of the load from the mains is a real issue.

**Available version:** 

- MP (200 kVA) 25% THDi
- · MP-Clean (200 kVA) 5% THDi
- · 12MP (200-800 kVA) 5% THDi
- · 12MP-Clean (200-800 kVA) 3% THDi

#### **CLEAN INPUT**

Thanks to the low input current distortion of up to 3% (12-pulse Clean version), EPI MP represents a load with sine wave input for the source reducing any interference to the other loads connected on

the same busbar. For all versions the power factor is > 0,9, while the 12MP Clean version guarantees a power factor up to 0.95 even at partial loads. This means that it is unnecessary to oversize the connection cables and the rating of the upstream MT/BT supply transformers thereby reducing the installation and ownership cost.

## MOTOR GENERATOR FRIENDLY

The low input current distortion, the high input power factor, the progressive start-up of the rectifier (settable) and the battery recharge inhibition makes MP ideal for use in conjunction with a smaller size generator set, in some cases close to the UPS rated power.

# **BATTERY CARE SYSTEM**

MP includes the "Battery Care System" which manages the batteries in order to obtain best performances and prolonged operating life







#### BATTERY RECHARGE CAPABILITY

MP is designed to supply the nominal load and recharge the batteries. At partial loads the spare power can be used to recharge the batteries, therefore MP can recharge batteries with 3 hours back ups time in only 10 hours.

#### **FLEXIBILITY**

MP Series is ON-LINE double conversion design but can also operate in:

- · Smart Active
- Stand-by-Off, suitable for Emergency Escape Light (CSS – Central Supply System), as per standard EN50171.

All models can be used as frequency converter - 50/60Hz and vice versa.

#### **EXPANDABILITY**

The units can be connected in parallel - up to eight modules - to increase power availability or the redundancy. The single module or the system can be expanded at any time depending on the power demand without any impact on the initial investment. Thanks to the peculiarity of the "Hot System Expansion" feature, the additional unit can be connected in parallel while the other units

are on-line and supplying regular power to the load. The new UPS in on-line and will receive the updated information automatically.

#### EASE OF INSTALLATION

Master Plus is compact with a foot print of only o.64sqm for a 200kVA system. Front access to internal assemblies and top panel ventilation make space allocation within confined data processing or plant rooms. MP can be placed against a wall as there is no requirement for rear or side panel access for maintenance or ventilation.

### ADVANCED COMMUNICATION

MP Series is delivered with the EPI UPSMon Software package. The UPS is supplied with two RS232 outputs for remote monitoring and a wide range of communication cards.

#### **APPLICATION**

MP guarantees maximum protection and quality of power supply for any type of load and in particular for "mission critical" applications, security and electromedical systems, industrial processes and telecommunications.

# **Technical Specifications:**

INPUT	MP-200	12MP-200	12MP-300	12MP-400	12MP-500	12MP-600	12MP-800				
Voltage			380 -	400 - 415 V three	-phase						
Voltage Tolerance	400 V ±20%										
Input Frequency	45-65 Hz										
Accepted Frequency	±2% (selectable from ±1% to ±5% from The Front Panel)										
	MP: <25% THDi: MP CLEAN: <5%THDi;		12MP: <5% Th	IDi;	12MP:< 8% THDi;						
Current Distortion	12MP: <5% THDi; 12MP CLEAN: <3% THDi	12	MP CLEAN: <3°	% THDi	12MP <4% THDi						
Input Phases	3 + N										
Soft Start (Power Walk In)	o-100% in 120 Configurable										
BATTERIES											
Туре	Lead, Open Vase Acid and VRLA AGM/GEL; NiCd										
Number of Pb Elements	198	240			240						
Ripple Current	0		0		<1%						
Temperature Compensation	-o.5 Vx°C	-o.5 Vx°C			-o.5 Vx°C						
OUTPUT											
Rated Power	200kVA	250kVA	300kVA	400kVA	500kVA	6ookVA	8ookVA				
Active Power	160kW	200kW	240kW	320kW	400kW	48okW	640kW				
Phases Number	3+N										
Waveform	Sinusoidal										
Rated Voltage	380 - 400 - 415 V three-phase + N										
Voltage Distortion with Distorting Load	<b>43</b> %										
Voltage Distortion with Linear Load	<b>\1</b> %										
Frequency	50/60 Hz Configurable										
Dynamic Stability	±5% in 10m sec										
Static Stability	±1%										
Crest Factor (lpeak/lrms)		3:1									
Output Phases		3									
Overload	110% for 60'; 125% for 10'; 150% for 1'										
SYSTEM											
AC/AC efficiency	Up to 94%										
Operating Altitude	Up to 1,000m a.s.l. (1% Derating each 100m from 1,000m to 2,000m)										
Noise (at 1m)	63-68 dBA 70 dBA 78 dBA										
Storing Temperature	-20°C, 70°C (UPS); 20°C to 30°C (Batteries)										
Operating Temperature	o-40°C										
Relative Humidity		<95% non Condensing									
Protection Degree	IP20										
Protections		Back Feed Protection; separated By-pass Line									

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SYSTEM												
Communication	No. 2 RS232 + Remote Contacts + 2 Communication Interface slots											
Remote signals	Voltage Free Contacts											
Remote Controls	E.P.O. and Bypass											
Cooling	Forced Air											
Colour	Light Grey RAL 7035											
Standards	Directives EEC 73/23 - 93/68 - 89/336 Safety IEC EN 620401; EMC IEC EN 6204-2; Performance IEC EN 62040-3											
Technology	On-line Double Conversion											
Weight (kg)	810	2,200		2,600	3,600 4,000		5,300					
Dimensions (WxDxH)mm	800x800x1900	1630x850x1900		1630x1000x1900	3200x980x1900		4400X1000X1900					
Classification as per IEC 6240-3	(Voltage Frequency Independent) VFI - SS - 111											
OPTIONS												
Battery Cabinets for Longer Runtimes	Yes											
Empty Battery Cabinets for Longer Runtimes	Yes											
Longer Runtimes	Yes											
Parallel Kit	Yes											
Optional Filters	Yes											
Isolation Transformer Module (WxDxH)	Yes											
LCD-based Remote Control Panel	Yes											
LED-based Remote Control Panel	Yes											
Communication software	Yes											
Professional' Version	Yes											
OPTIONS												
MultiCom 351	Х	Х	Х	Х	Х	Х	Х					
MultiCom 352	Х	Х	Х	Х	Х	Х	Х					
MultiCom 301	Х	Х	Х	Х	Х	Х	Х					
MultiCom 302	Х	Х	Х	Х	Х	Х	Х					
NetMan 101 Plus	Х	Х	Х	Х	Х	Х	Х					
NetMan 102 Plus	Х	Х	Х	Х	Х	Х	Х					
Multi I/O	Х	Х	Х	Х	Х	Х	Х					
AS/400 Interface Kit	Х	Х	Х	Х	Х	Х	Х					
UGS - UPS Group Synchronizer	х	Х	Х	Х	Х	Х	х					
PSJ - Power System Joiner	Х	Х	Х	Х	Х	Х	Х					
MultiCom 401	X X X X X X X											