



Mars II Tower

True On-Line, double-conversion,
Monolithic, High Performance UPS System

The Mars II Tower UPS System has a power factor of 0.9, providing more active power for the same kVA than its competitors. With a capacity to place four units in parallel, its scalability and redundant capacity is ideal.



CRITICAL LOADS



EDUCATION



HEALTH CARE



GOVERNMENT



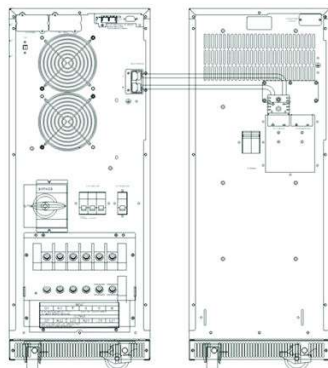
EDUCATION

Main Features:

- 0.9 Power Factor
- Up to 4 units in parallel for 3 + 1 redundancy, using parallel communication cables.
- On-Line, Double-Conversion topology.
- Electronic bypass, and manual maintenance bypass.
- LCD screen, LED panel, 6 configuration controls.
- Configurable battery jar number for improved flexibility and adaptability.
- Precise runtime estimation.
- Multiple operation modes to improve efficiency.
- Hot-Swappable batteries while unit is on.
- Internal isolation transformer.
- IGBT-based rectifier and inverter.
- Valve regulated lead-acid batteries, free of maintenance.

Rear View

15k/20k tower.



UPS

First Battery Bank

Front View



MARS II Specifications

MODEL	AB-MSII20002		AB-MSII20000	
Input	Voltage Range	160VAC - 260VAC		
	Frequency Range	45Hz - 65 Hz (Auto-Sensing)		
	Electrical Configuration	Single-Phase: PH + N + G; Two-Phase: PH + PH + G		
	THDi	≤ 3%		
	Power Factor	≥ 0.99 @ Full Load		
	Connection Type	Direct cabling with terminals		
Output	Capacity	20,000VA / 18,000W		
	Nominal Voltage	200 - 240VAC (Selectable)	100 - 127VAC / 200 - 240VAC (Selectable)	
	Electrical Configuration	PH + N + G	PH + N + G, or PH + PH + N + G	
	Power Factor	0.9		
	THDv	≤ 2% with linear loads, ≤ 4% with non-linear loads		
	Voltage Regulation	± 1%		
	Frequency Range	50/60Hz ± 1Hz in battery mode and CVCF mode		
	Crest Factor	3:1		
	Connection Type	Direct cabling with terminals; optional PDU		
	Waveform	Pure sinewave		
Efficiency	On-Line Mode	91%		
	ECO Mode	98%		
Battery	Type	Valve regulated, lead-acid, absorbent glass mat, maintenance free		
	Quantity & Voltage	60 jars, 12V 7AH or 9AH; 240VDC	External battery pack, 80 12V 9AH jars; 240VDC	
	Recharge Time (to 90%)	3 to 4 hours to 90%		
	Charger	Powered by 2-stage AC connection; optional temperature compensation		
Display	LED Panel	Mains and bypass (dual input), parallel mode, failure, and ECO mode		
	LCD Information	Input voltage and frequency, output voltage current and frequency, load percentage, battery voltage, internal temperature, estimated runtime		
	Self Diagnostics	After power up, manual command through control panel and communications, routine verification		
Alarm	Audiovisual	Mains failure, on battery, low battery, bypass, system failure		
Protection	Software	Overload, over temperature, short circuit, load failure, disconnected battery		
	Hardware	Mains and bypass input breakers		
Operating Modes	Multiple Mode	Normal, ECO, Constant voltage constant frequency (CVCF)		
	Cold Start	Yes		
	Capacity & Redundancy	Up to four units in parallel, 3+1		
		Manual and automatic		
Physical	Dimensions (WxDxH, mm / in)	290 x 645 x 748 / 11.42 x 25.39 x 29.45	320 x 670 x 1,018 / 12.60 x 26.38 x 40.08	
	Net Weight (kg / lbs)	60 / 132.28	140 / 308.65	
Environmental	Audible Noise	≤ 60 dBA @ 1 meter		
	Operating Temperature	0 - 40°C / 32 - 104°F		
	Operating Humidity	0 - 90% (no condensation)		
	Operating Altitude	Up to 3,000 meters above sea level (9,842 feet)		
Communications	Standard	USB, EPO, remote power on/off, RS232, two slots for network cards, RJ45 ports for parallel		
	Additional Protocols	J-Bus, Modbus, SEC, SNMP V3 network card for IPv6 / Web		
	Accessory Options	RS232, RS485, Dry Contacts, SNMP/WEB network cards		
	Compatible Platforms	Microsoft Windows Series, Linux, Mac		
Standards & Certifications	Safety	EN62040-1-1		
	EMC	EN62040-2, EN61000-3-2, EN61000-3-3		
	Marks	CE		

* Specifications are subject to change without prior notification

