Mars RT Pro
Convertible Series On-line UPS

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The Mars Convertible Pro series, equipped with field-proven Digital Signal Processor is the ideal UPS system for Servers, Networks, Storage, Telecommunications and Industrial Equipment.

- Rack/Tower Design
- Advanced Digital Control Technology
- Wide Input Voltage and Frequency Windows
- Programmable Receptacles
- Unity Input Power Factor
- Double Conversion Online Technology
- Customer Options Slot
- Optional Manual Bypass
- Hot Swappable Battery
- Emergency Shutdown Control through EPO
- Matching Battery Cabinet
- Extended Runtime Capability
- Super Compact Convertible Design
- Powerful Built-in Charger


Rack/Tower Convertible


Easy Communication


Hot Swappable


Plug & Play

Self-Diagnostics

Mars RT Pro
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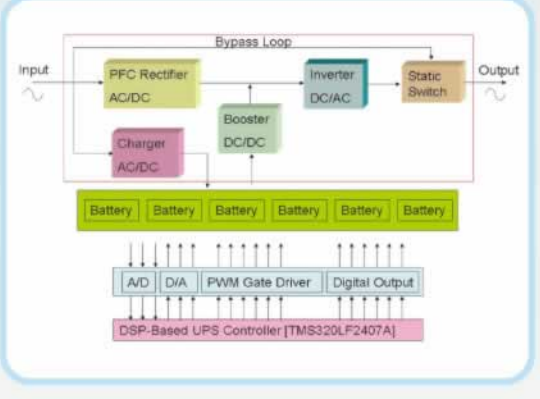
Rack/Tower Design
Enables integration into a wide variety of environments.

Advanced Digital Control Technology
Achieves higher reliability and greater immunity from Utility power problems to the connected load.

Wide Input Frequency and Voltage Windows
A wide input frequency window from 45Hz to 65Hz and a voltage input window of 60~144Vac for 120Vac system or 120~288Vac for 230Vac system extend battery life.

Unity Input Power Factor
Meets today's industry standard for energy saving and low current harmonic pollution to the Utility.

Double Conversion On-line Technology
Completely re-generates the Utility Power to correct power disturbances in the Mains. The unit provides clean A.C. power with Voltage and Frequency Independent from the Utility(VFI).



User Friendly Display
An easy-to-read LED display provides real-time indication of all major system parameters and system status including load level, battery level, bad battery, site wiring fault, overload, programmable outlet status...etc for easy service.
Optional LCD display is also available while ordering.

▲ LCD

▲ LED

Emergency Shutdown Control Through EPO
Allows users to shut down the UPS completely in an emergency to ensure a safe operating environment.

Programmable Receptacles

Remote Reboot and Load Shredding via software reserving back-up power for critical loads.

Hot Swappable Battery

Allows battery replace without UPS or critical load interruption.

Powerful Built-in Charger

Provides approximately 0.3C charging ability to re-charge internal battery to 90% in 3 hours. Optional battery Charger may extend battery runtime up to maximum required.

Specifications	1K/1.5KVA	2K/3K
Model Name	CHR200W	
AC Input		
Voltage Window	80V-288Vac	
Current	2.9A Max.	
Frequency	50Hz/60Hz +/-10%	
DC Output		
Voltage(No Load)	41.0 +/-0.5Vdc	82.0 +/-0.5Vdc
Charging Current	4A.	2A
Efficiency(Full Load)	>80%	
Output Capacity	Max. 160W	
Operation Mode	Constant Voltage with Current Limitation	
Dimension(WxDxH) mm/inch	206x88x69/8.1x3.5x2.7	
Net Weight(kgs/lbs)	0.55/1.21	

The Communication Software

The bundled communication software allows the control of the UPS and graceful shutdown when Utility fails.
Users Can:

- Remotely test the major operating functions of the UPS,
- Communicate via SNMP/Web/Network adapter,
- Access UPS functions via the Web,
- Alert users via SMS messages against specific events.

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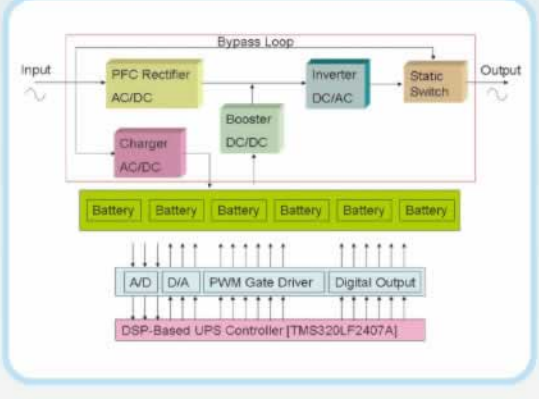

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Galvanic Isolation Transformer Models Also Available

For who needs galvanic isolation protection, you may choose the models with built-in transformer or charger.

Patent RS232 and USB Communication Interfaces

The patented technology allows the RS232, USB and SNMP slot to be activated simultaneously.

Super Compact Convertible Design

With a most compact 2U design, the UPS occupies less space in a 19" rack cabinet, or in the 21" rack cabinet with the optional 21" Rack accessories. The convertible design enables integration into a wide variety of environments.

MSRT Pro Series Technical Specifications :

Model	MP 1000	MP 1500	MP 2000	MP 3000
INPUT				
Voltage (Vac)	60/70/80~144 or 120/140/160~288 *			
Frequency (Hz)	50/60 +/- 5Hz (Auto Sensing)			
Phase	Single phase with ground			
Input Power Factor	>0.99 (Full Load)			
OUTPUT				
Voltage (Vac)	100/110/115/120/127 or 200/208/220/230/240			
Voltage Regulation	< ±1% until low battery warning			
Capacity (VA/W)	1000/700	1500/1050	2000/1400	3000/2100
Power Factor	0.7/0.8 Lagging**			
Wave Form	Sine Wave, THD<3% (no load to full load)			
Frequency Stability	±0.1% unless synchronized to line			
Frequency Regulation	3Hz or 1Hz (Setting by software)			
Transfer Time	0 m sec			
Crest Factor	3:1			
Efficiency (AC to AC)	>85%	>85%	>85%	>88%
Autonomy (Built-in Battery)	>7min	>5min	>7min	>5min
DC Start	Yes			
BATTERY				
Type	Sealed Lead Acid Maintenance Free			
Capacity	7Ah	9Ah	7Ah	9Ah
Quantity (pcs)	3		6	
Voltage (Vdc)	36		72	
Recharge Time	3 hours to 90%			
Built-in Charger (max. Charging Current)	1.8A		2.1A	2.7A
DISPLAY				
LED	Normal, Battery, Bypass, Programmable Outlet1, Programmable Outlet2, Self-Test, Battery Weak& Bad, Site Wiring Fault, Fault, Overload, and Load/Battery Level conditions.			
Key	On button / Off button (Test / Alarm silence button)			
Self-Diagnostics	Upon Power On and Software Control			
PROTECTION				
Overload AC Mode & Backup Mode (delay before switching to bypass)	<105% continuously >106%~120% for 30 seconds transfer to bypass >121%~150% for 10 seconds transfer to bypass >150% immediately transfer to bypass Buzzer continuously alarms			
Bypass Mode	<105% continuously >106%~120% for 250 seconds shut down >121%~130% for 125 seconds shut down >131%~135% for 50 seconds shut down >136%~145% for 20 seconds shut down >146%~148% for 5 seconds shut down		>149%~157% for 2 seconds shut down >158%~176% for 1 second shut down >177%~187% for 0.32 seconds shut down >188% for 0.16 seconds shut down Buzzer continuously alarms	
Short Circuit	Hold whole system			
Overheat	AC Mode: Switch to Bypass ; Backup Mode: UPS shuts down immediately			
Battery Low	Alarm and Switch Off			
EPO	UPS shuts down immediately			
Battery	Advanced Battery Discharge Management(ABDM)			
Noise Suppression — 115V System	400 Joules			
Noise Suppression — 230V System	300 Joules			

Model		MP 1000	MP 1500	MP 2000	MP 3000
ALARMS					
Audible and Visual		Line Failure, Battery Low, Overload, System Fault Conditions			
PHYSICAL					
Dimensions (WxHxD) mm / inch		440x88x405 / 17.3"x3.5"x16"		440x88x650 / 17.3"x7"x25.6"	
Input Connection	115V System	NEM 5-15P	NEMA 5-15P	NEMA 5-20P	NEMAL 5-30P
	230V System	IEC 320-C14	IEC 320-C14	IEC 320-C14	IEC 320-C20
Outlets (NEMA 5-15R) 120V		6 x 5-15R	6 x 5-15R	2x5-15R+2x5-20R	4x5-15R+1xL5-30R
Outlets (IEC) 230V		6pcs IEC320-C13			4x IEC320-C13 & 1x IEC320-C19
Net Weight(Kgs / 1bs)		15.1 / 33.3		27.9 / 61.5	29.7 / 65.4
ENVIRONMENT					
Operating Temperature		0 °C~40 °C / 32 °F~104 °F			
Temperature Warning		The battery design life is based on a temperature of 25°C / 77°F Ambient temperature above this range will reduce battery life.			
Altitude		0~2000m / 6600ft up to 40°C / 104°F,3000m / 9900ft up to 35°C / 95°F			
Humidity		90% RH Maximum, Non-Condensing			
Noise		<50dB(at 1 meter / 3.3 ft)			
COMPUTER INTERFACE					
Interface Type		Standard RS232 and USB Interfaces			
Communication Slots		Relay Contact Board, SNMP/WEB card, etc.			
Compatible Platforms		Windows 95/98/NT/2000/XP/Vista, Novell NetWare, Linux, etc.			
SAFETY CONFORMANCE					
Quality Assurance		ISO9001 Certified Company			
Safety Standard		EN62040-1-1, IEC60950-1			
Performance		EN62040-3 complied			
EMC Standard		EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A			
Marks		CE, UL, cUL, FCC			

Model	MP1000X/MP1000C	MP2000X/MP2000C	MP3000X/MP3000C
INPUT			
Dimensions (WxHxD) mm	440x132x405 / 17.3"x5.2"x16"	440x176x520 / 17.3"x7"x20.5"	
Input Connection (230V only)	IEC 320-C14		IEC 320-C20
Outlets (230V only)	6 x IEC320-C13		4 x IEC320-C13 & 1 x IEC320-C19
Weight(Kgs / lbs)			
w/o transformer w/batteries	15.5 / 34.2	32.0 / 70.5	33.0 / 72.7
w/o transformer w/200W charger	7.9 / 17.4	16.7 / 36.8	17.7 / 39.0
w/transformer w/batteries	22.0 / 48.6	42.0 / 92.6	46.0 / 101.4
w/transformer w/200W charger	14.4 / 31.8	26.7 / 58.9	30.7 / 67.7

BATTERY BANK					
Model	Battery Type	Maximum Quantity	Without Batteries kgs/lbs	With Batteries kgs/lbs	Dimension(WxHxD) mm/inch
BBC12M0007	7AH	12pcs	8/17.7	38/83.7	440x88x650/17.3x3.5x25.6
BBC12K0007	9AH				

* Based on load(%)- 0~33/33~66/66~100% respectively.
** Operation 0 ~30 °C / 54 °F if the power factor is at 0.8.
*** MP is the abbreviation of MSRT Pro.