

# AETES

## UPS ONLINE RM 4U SERIES

*Industrial Communication Ports  
Compact, Minimal Depth  
Five-Year Warranty*



*"...power alliance..."*

## DESCRIPTION

AETES's 19" Rack Mountable RM 4U series UPS are designed to provide conditioned power to electronic control systems and other sensitive electronic equipment. AETES RM 4U UPS is a Double Conversion, On-line UPS, protects your equipment from voltage sags, spikes and complete power failure that may interrupt critical systems, cause data loss and even damage equipment; continuously conditions and regulates its output voltage.

## FEATURES

- True On-Line Double Conversion
- Selectable ECO-MODE operation for Higher Efficiency
- UPS Monitoring and Automatic Shutdown Software
- Low output voltage ripple and high reliability
- LCD display, showing measurements, status and alarm messages
- Audible alarm and Led displays for easy observation of UPS status
- EPO Port Ready Emergency Power Off Switch
- Setup of Voltage and Frequency from front panel
- Over Load, Over Temperature, Short Circuit protections
- Wide input voltage range
- Cold Start; DC Power On

## OPTIONS

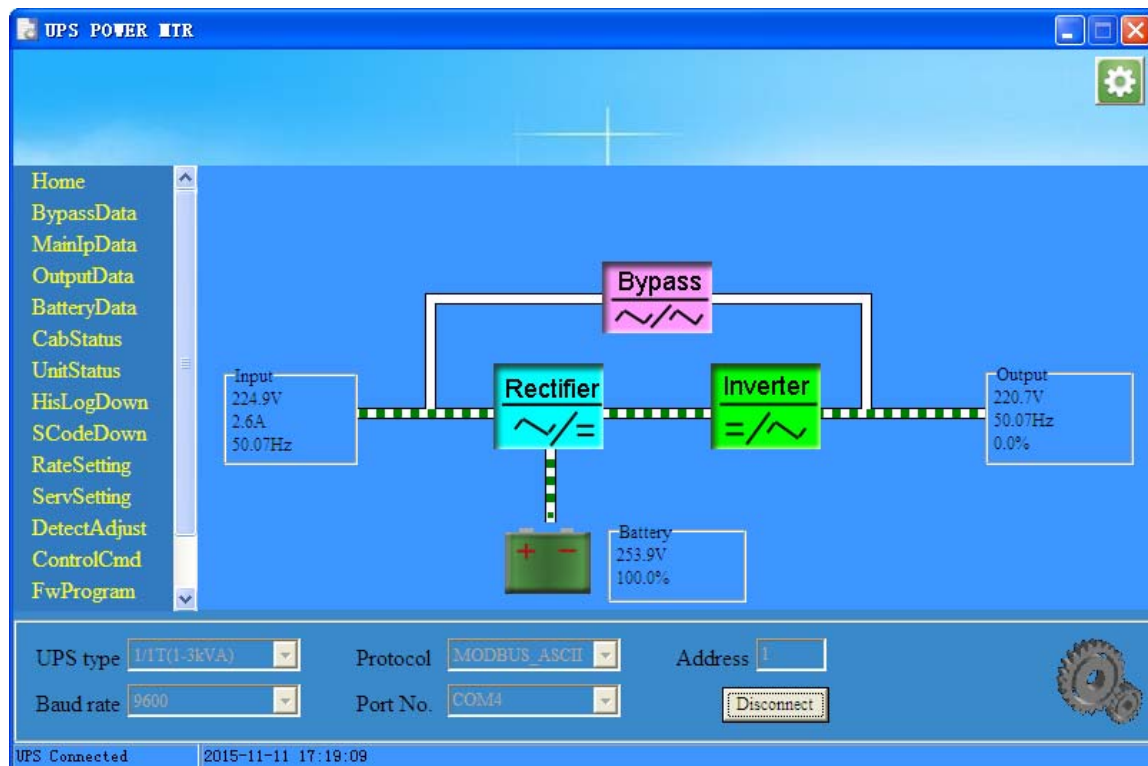
- External DC Power Socket and Additional Battery Modules for Longer Backup Time
- SNMP Web/Network Management Module
- Dry Contact Relay Module
- USB-B Communication Port
- RS485 ModBUS Communication Module
- Remote Monitoring Panel

# GENERAL SPECIFICATION

MODEL	RM 4U 2000	RM 4U 3000
Topology	True On-Line, Double Conversion	
On-battery Output Waveform	True Sine Wave	
Maximum Capacity	2000VA / 1800W	3000VA / 2700W
<b>INPUT</b>		
AC Input Type	Single Phase (P+N+G)	
Nominal Input Voltage	208/ 220/ 230/ 240 VAC	
Input Voltage Range	112V... 286V AC	
Nominal Input Frequency	50Hz / 60Hz (Auto Sensing)	
Input Frequency Range	40...70 Hz	
Input PFC	>0.98 @Full load	
<b>OUTPUT</b>		
Nominal Output Voltage	208/ 230/ 230/ 240 VAC(Selectable)	
Output Voltage Regulation	Rated Voltage +/-1%	
Output T.H.D	<2% THD at Linear Load	
Efficiency AC to AC (Eco Mode)	<97%	
Crest Factor	3 : 1	
Start on Battery	Yes	
Auto Restart	Yes	
Number of Outlets	IEC320 C13 x6	IEC320 C13 x6 + IEC320 C19 x1
<b>PROTECTION</b>		
Surge Protection	Input Power Line and External Data Line Protection	
Overload Protection	130% Load for 60sec 150% of 30sec (Batt. Mode; 130% Load for 10sec)	
Short Circuit Protection	UPS output cut off immediately	
<b>BATTERY</b>		
Internal Battery Set	8-Year Life AETES 12V33.8W x6	8-Year-Life AETES 12V33.8W x8
Typical Backup Time (Full / Half load)*	12/ 30 min	9/ 23 min
Recharge Time to 90% (Typical)	< 8 Hours	
<b>DIAGNOSTICS</b>		
Front Panel LCD and LEDs	AC mode / On line / On battery / Bypass / Fault / Overload and other parameters	
Audible Alarms	Battery Mode / UPS Faults / Overload	
<b>COMMUNICATION</b>		
Communication Port	Standard; RS232 (Optional; USB-B or AS400 or Dry Contact Module)	
SNMP Network Management Module	Optional	
<b>ENVIRONMENTAL</b>		
Operation Temperature	0~40°C	
Storage Temperature	-20~70°C	
Relative Humidity	0~95% humidity, non-condensing	
Audible Noise	< 40dBA (at 1 meter from surface of unit)	
<b>COMPATIBILITY</b>		
Safety	IEC/EN 62040-1-1	
EMI	IEC/EN 62040-2 /Class A	
<b>PHYSICAL</b>		
Dimensions (WxDxH)	(mm) 438x480x176	438x480x176
Weight (Net / Gross)	(kg) 28.0 / 29.5	34.0 / 35.5
<b>WARRANTY</b>		
AETES Warranty Certificate	5-Year	

# MONITORING SOFTWARE

AETES Power Monitor software (UPS Power MTR) is designed for monitoring and setting RM UPS series. Its serial cable can be connected directly from UPS's RS232 or USB-B port to the your system computer's serial port. For example, the UPS event history log can be viewed on the interface or downloaded as a file.



AETES UPS Monitoring Software Interface Main Page

# DRY CONTACT RELAY MODULE

It is one of the optional modules that can be used in the Intelligent Slot. There are two connection types of Relay Card for option: DB9 or Cable Terminal. Max output current for Dry Contacts on Relay Card is 1 Amp. The function of outputs are listed as below:

## DESCRIPTION OF RELAY MODULE PINS

FUNCTION	DB9	TERMINAL	DESCRIPTION
UPS fault	1	9	Opened from common connection: UPS is abnormal. Closed: UPS is normal
General	2	7	Opened from common connection: UPS is warning Closed: UPS is normal
GND	3	2	Internal GND, used to connect external power supply 12-24Vdc
Remoted shutdown	4	4	Input port. Used with external power supply. If connected to power supply, UPS transfer to bypass. UPS shutdown if bypass is abnormal
Common connection	5	1	Common connection of output signal. Connected to power supply for input signal. Shown as Fig 5 2.
Bypass mode	6	8	Closed to common connection: UPS is working in bypass mode Opened: UPS is not working in bypass mode
Battery low	7	6	Opened from common connection: battery low alarm Closed: battery capacity is normal or not in battery mode
Normal mode	8	5	Closed from common connection: UPS is working in normal mode.
Utility failure	9	3	Opened from common connection: Utility input is failure

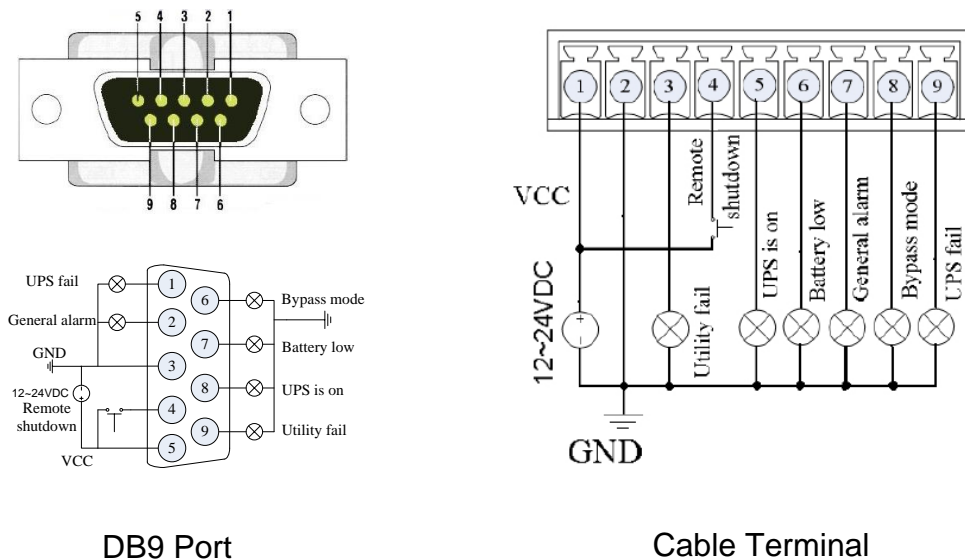
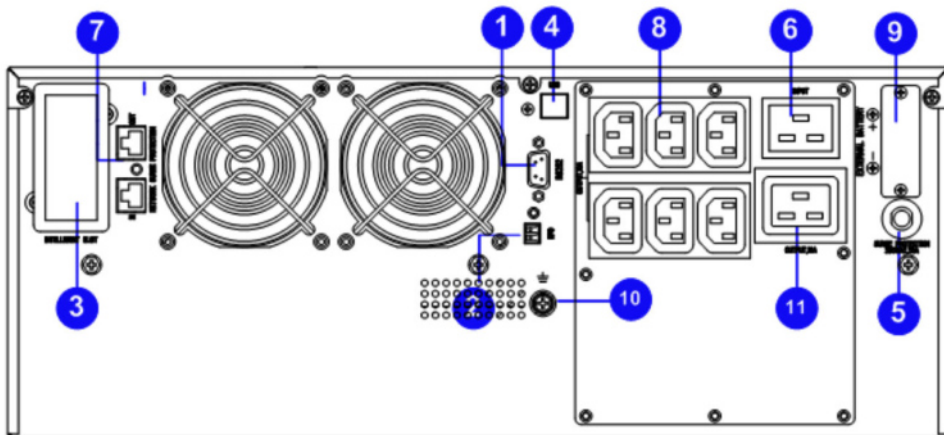
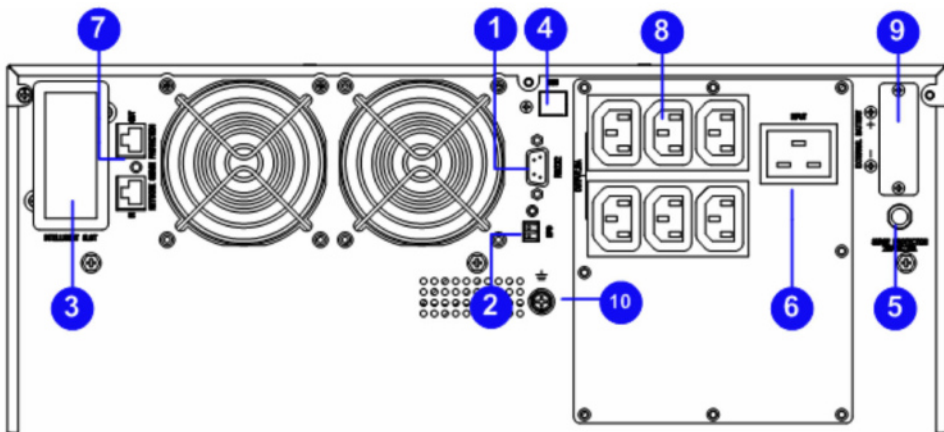


Fig.8 Wiring Diagram of Dry Contact Relay Card

# BACK PANEL



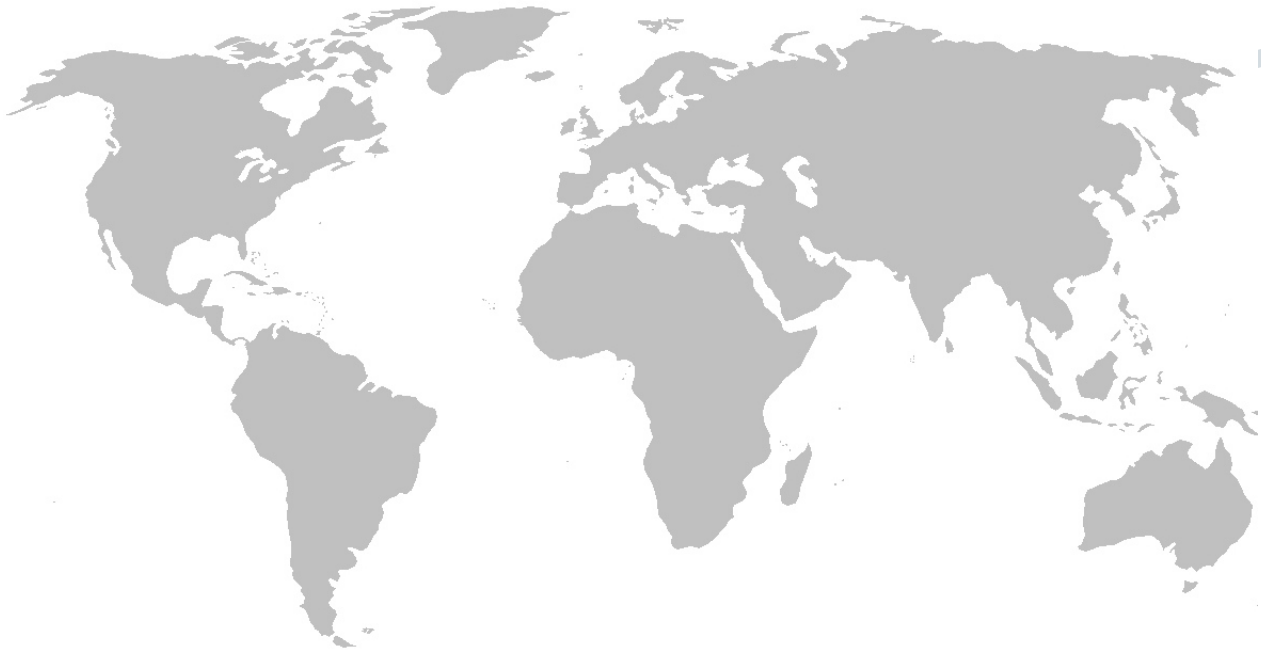
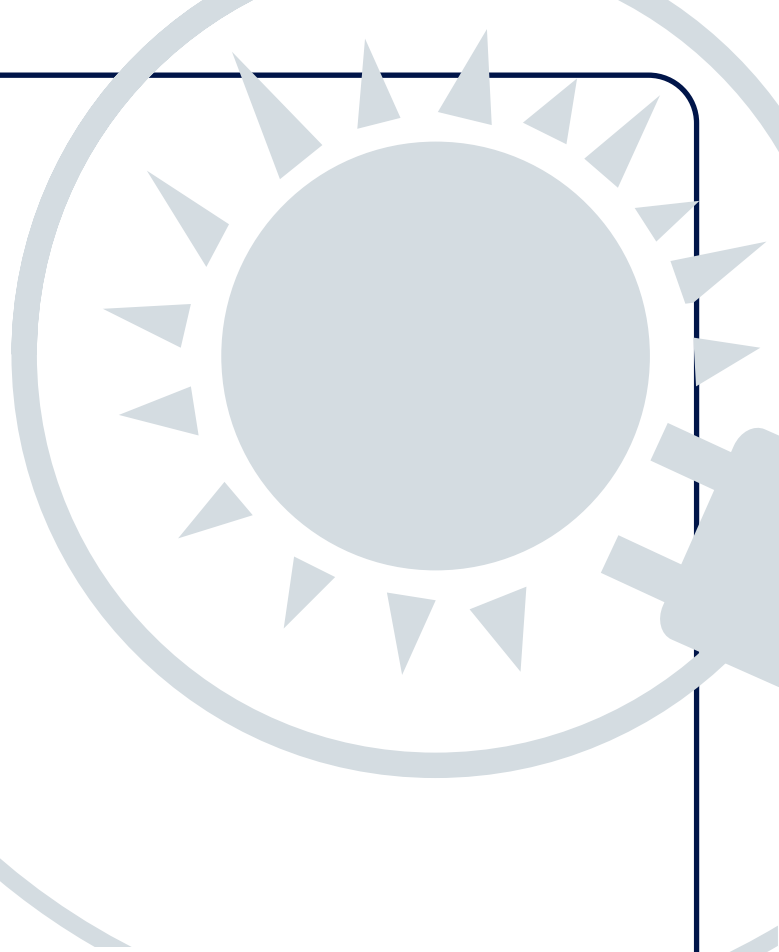
AETES RM 4U 3000



AETES RM 4U 2000

①	RS232 Communication Port.
②	EPO (Short to activate)
③	Intelligent Slot
④	USB port. B type (Optional)
⑤	Input Surge Protection Reset Button
⑥	Input Socket IEC C20
⑦	Network Surge Protection.
⑧	Output Sockets IEC C13
⑨	Optional External Battery Socket Slot
⑩	Battery Ground
⑪	Output Socket IEC C19

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