

# AETES

## 48VDC INVERTER RM 2U

*Pure Sine Wave AC Output*

*Useful LCD Front Panel*

*Small Size Design*



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## DESCRIPTION

AETES 48VDC Inverter RM 2U is a high technology equipment, including all protection and control systems, which is designed and manufactured to convert an 48V DC voltage to pure sinus and regulated AC voltage with a predefined frequency. It provides AC power, which is especially important for Industrial, Telecom and Energy applications.

This equipment contains internal line filters, it provides full electrical quality between DC / AC input supplies and AC output, and uses all advantages of Digital Signal Processor control. It provides also handy user interface and advanced communication features.

## FEATURES

- Lightweight and Slim Structure Provided by the Latest Semiconductor Technology
- Useful LCD Display, Showing Measurements, Status and Alarm Message
- Low Output Voltage Harmonics
- Wide DC Input Voltage Range
- Excellent Short Circuit Protection
- Overload and Over Temperature Protections
- Precise Output Frequency Regulation
- High Efficiency thanks to CPU Controlled Design
- ModBus RS232, RS485 ports for Remote Monitoring Purposes
- Alarm Outputs with 5 Dry Contacts for Input and Output Faults
- Other Advanced Communication Options

# GENERAL SPECIFICATION

<b>Model:</b>	48-230 1000VA	48-230 2000VA	48-230 3000VA	48-230 5000VA
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## DC Input

Voltage Range	Working 42V...59V (Starting 46V...57V DC)			
Rated Input Current	21A	42A	63A	104A
THDI	≤10%			
Efficiency	>85% (full linear load)			

## AC Output

Voltage	220V AC			
Capacity	800W	1600W	2400W	4000W
Max. Output Current	3,5A	7A	10A	18A
Line Regulation	±2%			
Frequency	50Hz or 60Hz ± 0.2Hz			
Wave Form	Pure Sine Wave			
THD Linear	≤3%			
Load Regulation	≤5% (load 0% to 100%)			

## AC Bypass Input

Voltage Range	176V...265V AC
Transfer Time	≤5ms

## Peripheral

Short	For 1 second; Switch to Bypass, then shutdown
Overload	105-125% for 3 seconds >125% for 1 second; Switch to Bypass
Temperature Range	-10°C... 50°C

## Compatibility

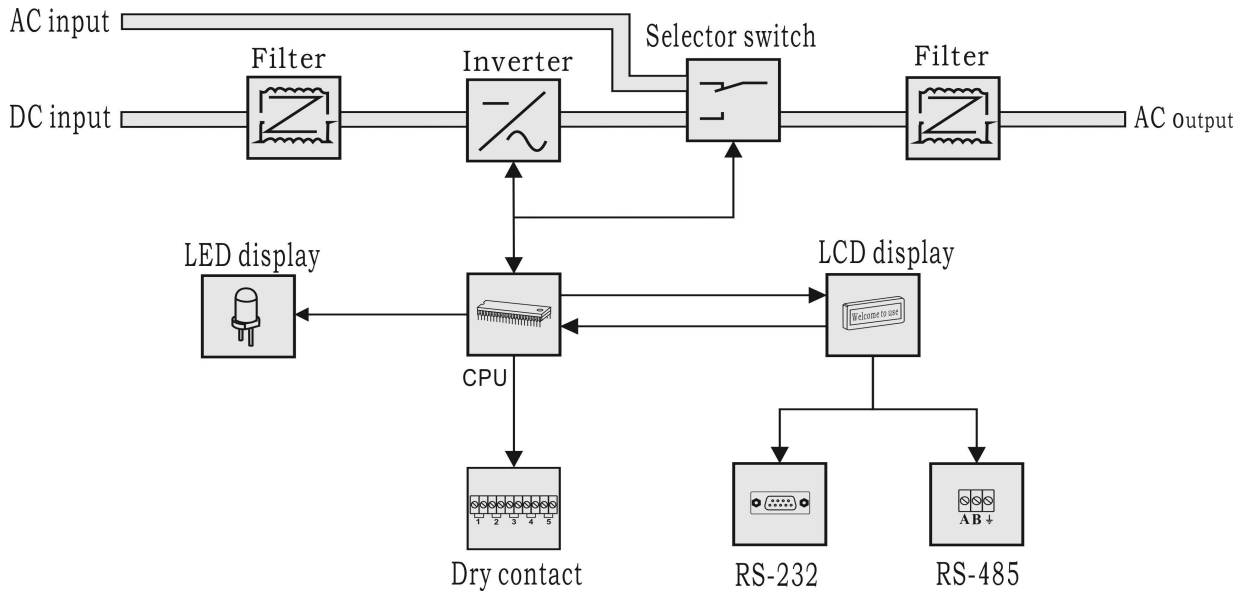
Safety	IEC60204
EMI / RFI	IEC61000

## Mechanical

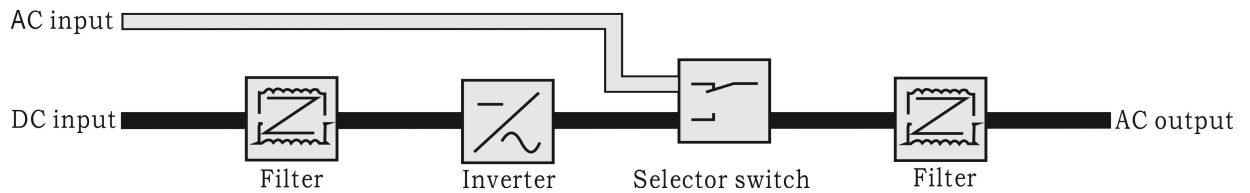
Dimensions	2U x 19" x 360mm	2U x 19" x 390mm		
Weight	9 kg	10 kg	11 kg	14 kg

# BLOCK DIAGRAM

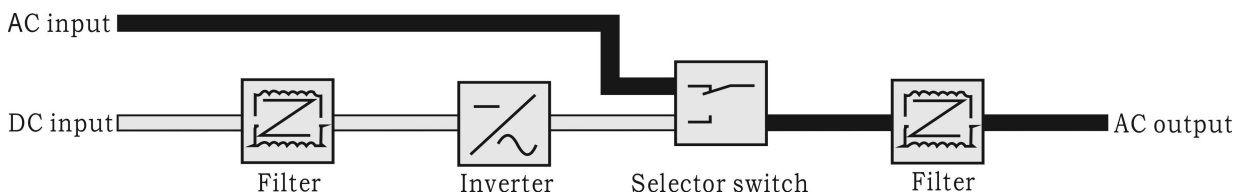
## ● WORKING PRINCIPLE



## ● DC MODE (Inverter)



## ● AC MODE (By-Pass)



# DRAWING

Figure 1: 48-230-1000VA / 48-230-2000VA

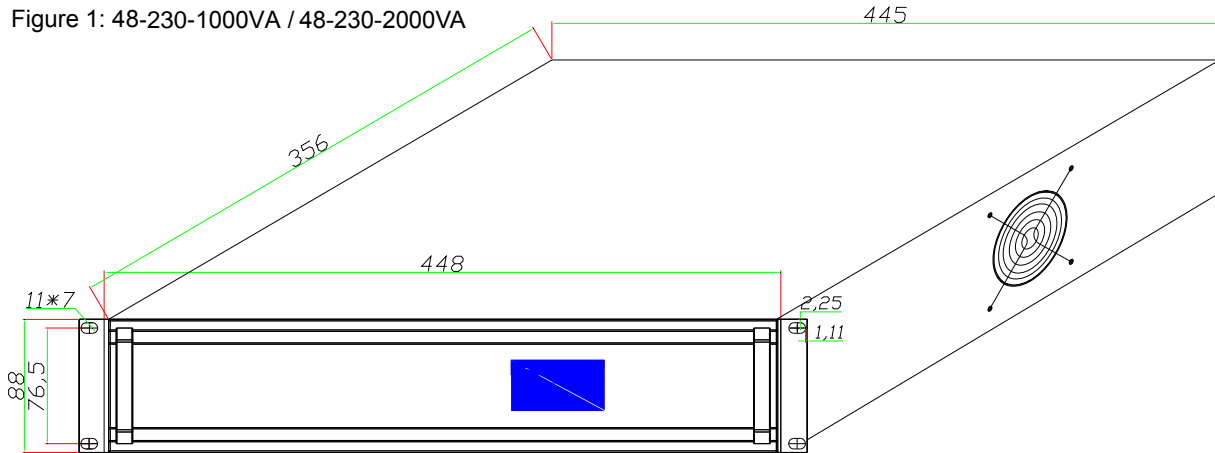
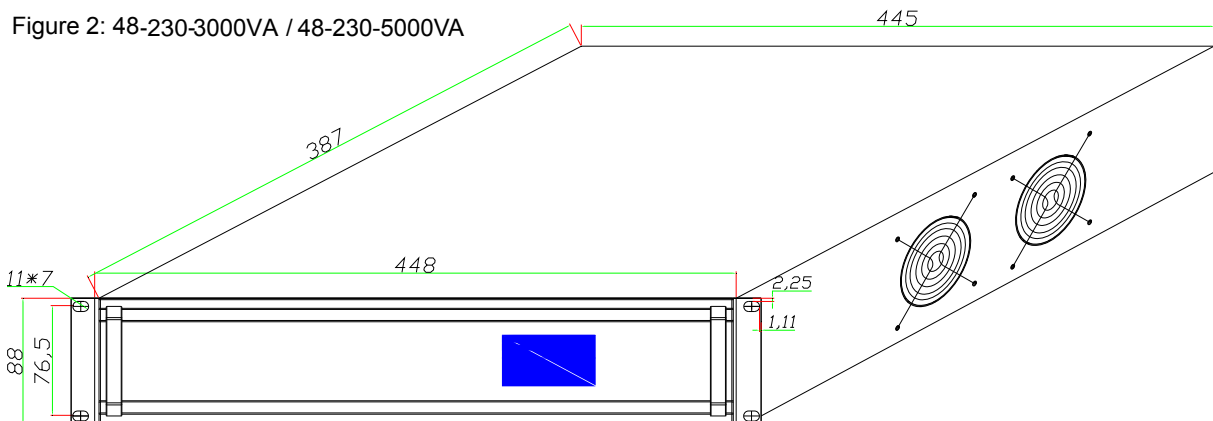
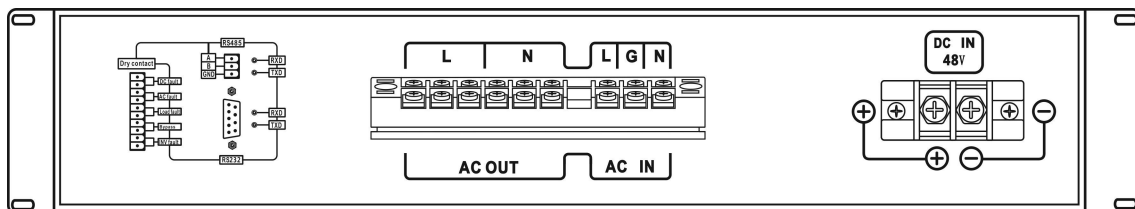


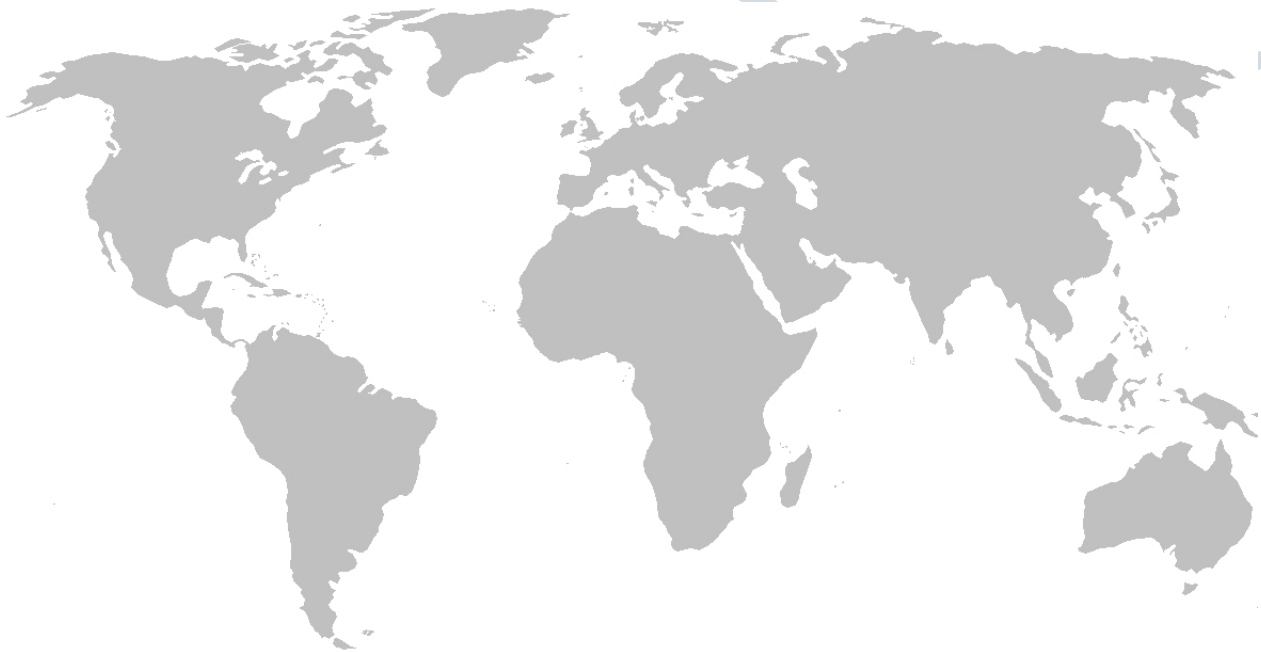
Figure 2: 48-230-3000VA / 48-230-5000VA



# REAR PANEL



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