

# ***AETES***

## ***ERM 2U 110VDC/AC Inverter***

*Pure Sine Wave AC Output*

*Useful LCD Front Panel*

*Small Size Design*



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

## **Description**

AETES ERM 2U Series Inverters is a high technology equipment, including all protection and control systems, which is designed and manufactured to convert an 110VDC 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 projects.

This equipment contains internal line filters, it provides full electrical quality between DC and 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.

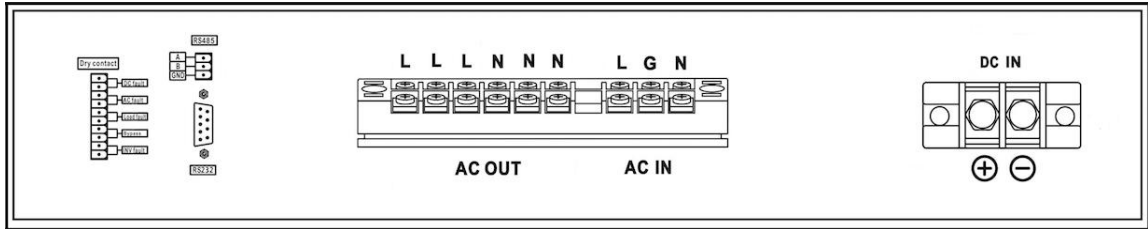
## **Features**

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

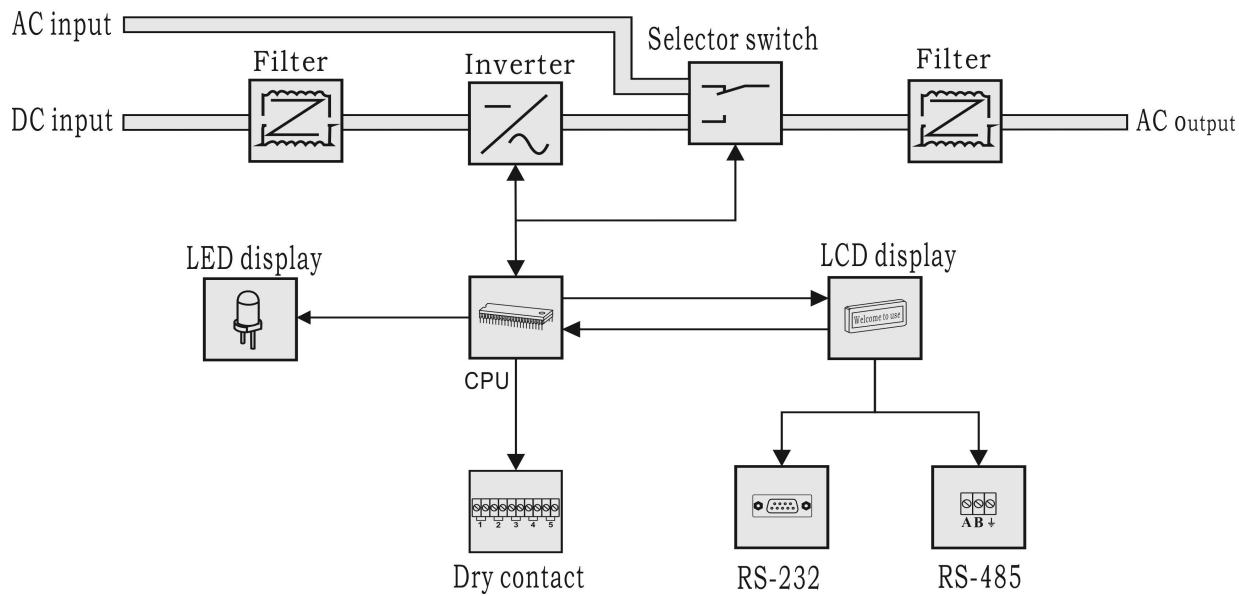
## Specification

MODEL	ERM-110-1P3-1K0	ERM-110-1P3-2K0	ERM-110-1P3-3K0	ERM-110-1P3-4K0
ITEMS				
Output Power (Continuous)	1000VA/ 800W	2000VA/ 1600W	3000VA/ 2400W	4000VA/ 3200W
Output Power Boost Capability	900W for 60s.	1900W for 60s.	2800W for 60s.	3800W for 60s.
Output Peak Capability	1100W for 10s.	2200W for 10s.	3300W for 10s.	4400W for 10s.
Input Voltage Range	92V...132V DC (Starting 105V...130V DC)			
Output Voltage	1-Phase (P-N) 110V or 220V AC (Order Option)			
Output Frequency	50Hz or 60Hz $\pm 0.1\%$ (Order Option)			
High Voltage Protection	Yes			
Output Over Load Protection	Yes			
Over Temperature Protection	Yes			
Short-Circuit Protection	Yes			
Efficiency Typ.	$>85\%$			
Line Regulation (max.)	$\leq \pm 2\%$			
Load Regulation (max.)	$\leq \pm 5\%$			
THD Linear (max.)	$\leq \pm 3\%$			
Communication	RS232 & RS485			
Status Indicators	4 LED & 5 Dry Contacts			
Remote Monitoring	TCP / SNMP (Optional)			
AC By-Pass Transfer Time	$\leq 6\text{ms}$			
Enclosure Material / Color	Metal / Black			
Cooling	Internal Fan-Forced			
Operating Temperature	$-10^{\circ}\text{C}$ to $+50^{\circ}\text{C}$			
Storage Temperature	$-30^{\circ}\text{C}$ to $+70^{\circ}\text{C}$			
Humidity (Non Condensing)	20-90% RH operating and non operating			
Withstand Voltage (One Minute)	Input to Ground 1500VAC, Input to Output 1500VAC, Output to Ground 1500VAC			
Isolation Resistance	$>50\text{M}\Omega$ at $+25^{\circ}\text{C}$ & 95%RH, Output to Ground 500VDC			
Safety Compatibility	EN60950-1			
EMI Compatibility	EN55032 Class B			
Weight (Typ)	9 kg	10 kg	12 kg	14 kg
Dimensions	B:2U D:360 E:440 mm	B:2U D:360 E:440 mm	B:2U D:390 E:440 mm	B:2U D:390 E:440 mm
Warranty	2-Year			

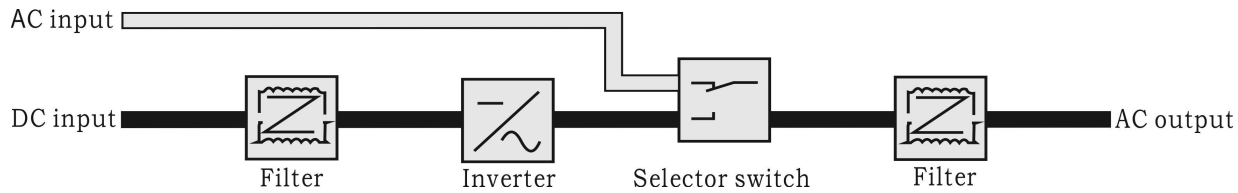
## Rear Panel



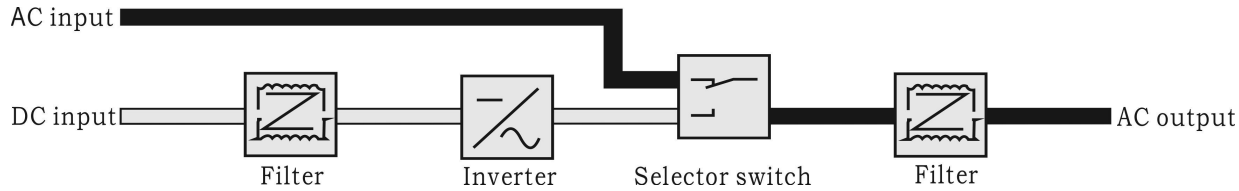
## Block Diagram



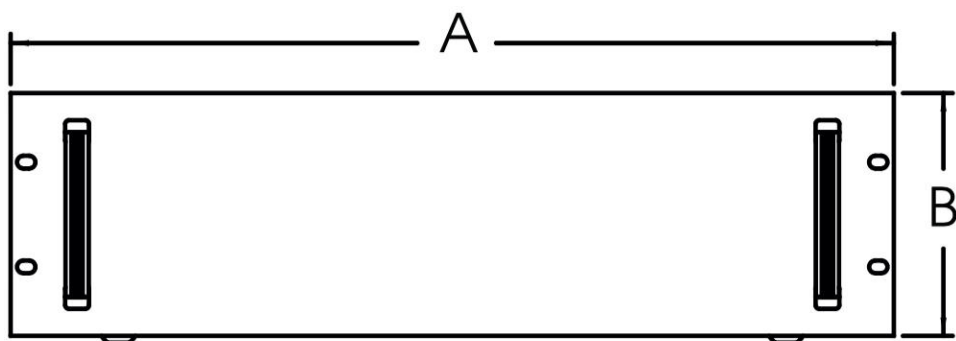
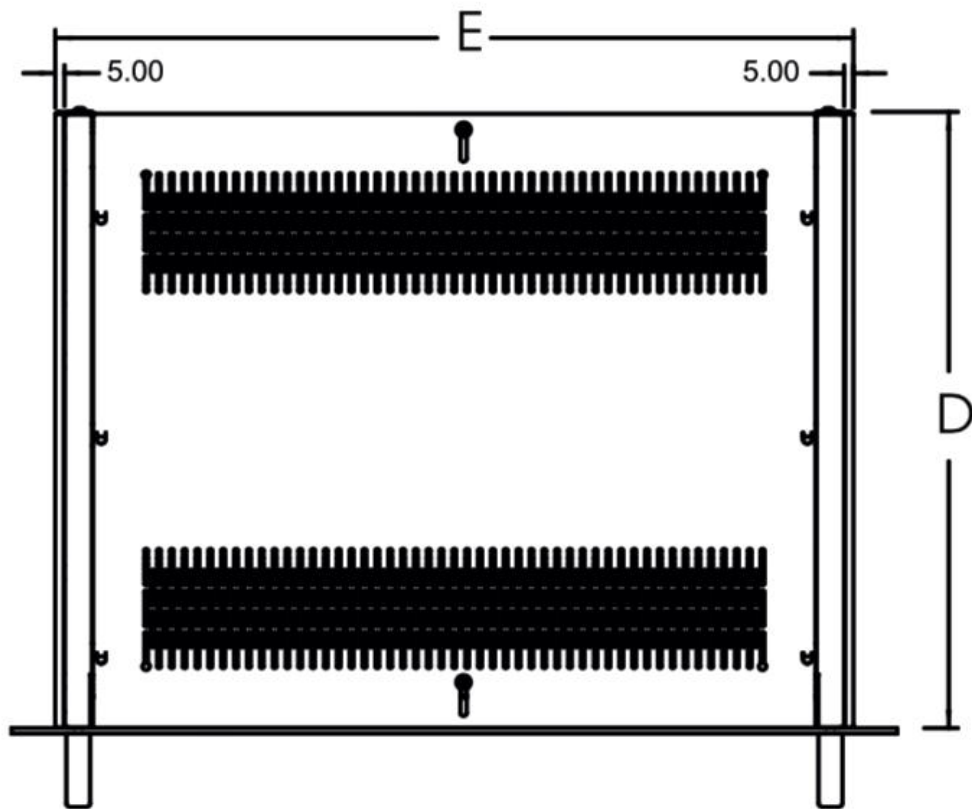
### DC MODE (Inverter)



## AC MODE (By-Pass)



## Drawing



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